UNIVERSITY OF ŽILINA
Faculty of Management Science and Informatics

ANNUAL REPORT

2016

CONTENT

Foreword

Faculty of Management Science and Informatics, University of Žilina was founded on July 17th 1990 by approval of University Senate. The main idea of foundation was integration of developing knowledge from ICT in the Faculty Programmes of study. That was above all students and staff from Department of Technical Cybernetics existing from 1972 on the University (in that time University of Transport and Communication, Faculty of Mechanical and Electrical Engineering). From this time University and Faculty were going through many changes and development connected by evolution, as well events, caused by society changes and corresponding legislative.

At the present we often encounter with the view that the universities education is focusing on the theories, which is far from requirements of fair practice. Our Faculty tries constantly monitoring the trends and employers requirements to put in the effect for all of our graduates. During the complex accreditation in 2015 Faculty addressed many employers with the question concerning qualification of our graduates. This was one of the groundwork for the change of our Programs of Study.

The change of education is very complicate matter, especially if we consider enforcement of graduates in praxis within 5 – 10 years. The most essential is to ground necessary knowledge to students, to learn them for permanent education and not to give up when obstacles are coming.

University education is not just courses and technologies for mastering of graduates. We believe the university education's mission is upbringing such graduates who will form new technologies, looking for new unexplored paths and move the area of knowledge over the frontier of contemporary knowledge. Thus, our society has become immortal and constantly advancing.

Faculty of Management Science and Informatics is one of the seven Faculties at University of Žilina, where are:

- Faculty of Operation and Economy in Transport and Communication
- Faculty of Electrical Engineering
- Faculty of Mechanical Engineering
- Faculty of Civil Engineering
- Faculty of Security Engineering
- Faculty of Humanities

At the present, there are near **9,000** students at the University of Žilina, including about **1,500** students at **the Faculty of Management Science and Informatics** in the academic year 2016.

Activities of the Faculty are determined by new trends of information and communication technology development, where the high priority task is to insure the continual interconnection between research, education and acceptation of postgraduates in the praxis. The main education and professional activities lie with fields as design and realization of technical tools for information and control systems, analysis, synthesis and design of integrated information and control systems, management, marketing, logistics, entrepreneurship, activity of transportation and communication systems, control and optimization of goods and passenger transport, control and optimization of databases design and their transmission and data processing, problematic of multimedia information systems and graphic information systems, simulation mediums for communication networks and systems and mathematical modelling.

Faculty of Management Science and Informatics offers the study in all three levels programmes of study (**Bachelor**, **Master** and **Doctoral**). All programmes are officially approved by the Accreditation Commission of the Slovak Republic. The programmes are interdisciplinary; they were conceived and created based on many years of the Faculty's successful research and educational tradition. Detailed descriptions of these programmes is performed in following text.

During its existence, **the Faculty of Management Science and Informatics**, as both a research and teaching institution, became a worthy equal partner to similar faculties not just in Slovakia, but in other countries as well. Earning this reputation was a long and strenuous process; but now the scientific and academic staffs of the Faculty, as well as their graduates, have achieved a well-deserved position in the world-wide academic community of informatics and management. **For a long time, our graduates have experienced great interest from employers. According to an official statistics in 2016, our Faculty is ranked at 3rd place among the top 20 faculties, whose graduates were most in demand and it is the 1st place among faculties outside of Bratislava, the capital of Slovakia.**

In conclusion I would like to stress that the main task of the technical-oriented faculties is to conduct continual education and research so that the knowledge obtained permits the graduates to contribute to society. I believe our Faculty's activities are helping our present and future students to be fully valuable individuals, capable by using their knowledge, skills and experiences in the conditions of the millennium.

Assoc. Prof. Ing. Emil K r š á k, PhD.
Dean

1 Faculty structure

1.1 Deanship

Dean: **Assoc. Prof. Ing. Emil Kršák, PhD.**
tel.: +421-41-513 40 50
fax: +421-41-513 40 55
e-mail: Emil.Krsak@fri.uniza.sk

Vice-dean for Study Affairs:
Assoc. Prof. Ing. Viliam Lendel, PhD.
tel.: +421-41-513 40 54
fax: +421-41-513 40 55
e-mail: Viliam.Lendel@fri.uniza.sk

Vice-dean for Science and Reseach:
Assoc. Prof. Ing. Michal Kohári, PhD.
tel.: +421-41-513 40 60
fax: +421-41-513 40 55
e-mail: Michal.Kohani@fri.uniza.sk

Vice-dean for International Cooperation:
Assoc. Prof. Ing. Peter Márton, PhD.
tel.: +421-41-513 40 53
fax: +421-41-513 40 55
e-mail: Peter.Marton@fri.uniza.sk

Head of Administration and Finance:
Ing. Marta Rešetková, PhD.
tel.: +421-41-513 40 75
fax: +421-41-565 40 55
e-mail: tajomnik@fri.uniza.sk

1.2 Departments of the Faculty

Organisational structure of the Faculty consists of dean's Office, seven departments, three special workplaces and one sub-campus:

- Department of Informatics
- Department of Information Networks
- Department of Macro and Microeconomics
- Department of Mathematical Methods and Operational Research
- Department of Management Theories
- Department of Software Technologies
- Department of Technical Cybernetics
- Information Centre
- Project's Centre
- Centre of Information Technologies
- Sub-Campus in the town Prievidza

1.3 Scientific Council

Chairman: Assoc. Prof. Ing. Emil Kršák, PhD.

Members:

Assoc. Prof. Ing. Martina Blašková, PhD.
Prof. Ing. Pavel Čičák, PhD.
Prof. Ing. Milan Dado, PhD.
Assoc. Prof. Ing. Mária Ďurišová, PhD.
Assoc. Prof. Zdeněk Havlice, PhD.
Prof. Ing. Štefan Hittmár, PhD.
Assoc. Prof. Ing. Miroslav Hrnčiar, PhD.
Prof. RNDr. Jaroslav Janáček, PhD.
Prof. Ing. Ľudmila Jánošíková, PhD.
Assoc. Prof. Ing. Ondrej Karpiš, PhD.
Prof. Ing. Martin Klimo, PhD.
Assoc. Prof. Ing. Viliam Lendel, PhD.
Prof. Ing. Vitaly Levashenko, PhD.
Prof. Ing. Karol Matiaško, PhD.
Assoc. Prof. Ing. Peter Márton, PhD.
Prof. Ing. Juraj Miček, PhD.
Assoc. Prof. RNDr. Stanislav Palúch, PhD.
Prof. Ing. Ladislav Šimák, PhD.
Prof. Ing. Karel Šotek, PhD.
Prof. Ing. Josef Vodák, PhD.
Prof. Ing. Liberios Vokorokos, PhD.
Assoc. Prof.Ing. Michal Zábovský, PhD.
Assoc. Prof. Ing. Jaroslav Zendulka, PhD.

1.4 Academic Senate

Chairman: Assoc. Prof. Ing. Norbert Adamko, PhD.
Senate Secretary: Mgr. Lýdia Gábrišová, PhD.

Chamber of Employees:

Assoc. Prof. Ing. Norbert Adamko, PhD.
Assoc. Prof. Ing. Martina Blašková, PhD.
Assoc. Prof. Ing. Peter Ševćík, PhD.
Assoc. Prof. Ing.Michal Koháni, PhD.
Assoc. Prof. Ing. Pavol Segeč, PhD.
Ing. Ján Ružbarský, PhD.
Ing. Monika Vajsová
RNDr. Hynek Bachratý, PhD.
Ing. Juraj Dubovec, PhD.
Mgr. Lýdia Gábrišová, PhD.
Ing. Monika Václavková, PhD.
Ing. Lucia Pančíková, PhD.
Ing. Michal Varga, PhD.
Ing. Brita Endersová

Chamber of Students:

Michaela Boteková
Bc. Oľga Chovancová
Michal Janešík
Dominika Tumová
Ing. Martin Holubčík
Vladimíra Purašová
Ing. Kristína Poláčková

2 Education

Education at the faculty is oriented to:

- Design and realization of technical means for information and management systems.
- Analysis and synthesis of regulation and automation systems.
- Control and optimization methods.
- Data transmission and data processing.
- Issues concerning multimedia information systems, graphic systems and simulation of components for communication networks, systems and mathematical modelling.
- Management, marketing, logistics, entrepreneurial skills, creation of transport and communication systems.

In the frame of **Bachelor Degree** there are three accredited study programmes:

- Informatics
- Computer Engineering
- Management

Aim of the Bachelor level is preparation of ungraduat students for their professional life and at the same time for study at master degree study programs.

In the frame of **Master Degree** there are five accredited study programmes:

- Applied Network Engineering
- Information Systems
- Information Management
- Computer Engineering
- Intelligence Information Systems

In the Programme Information Systems there are possibilities for the students to make choice in following Professional Orientations:

- Business Informatics
- Distributed and Parallel Systems
- Data Processing and Graphical Data Processing

In the frame of **Doctoral Programme** there are three accredited study programmes:

- Applied Informatics
- Management
- Intelligent Information Systems

Doctoral Programme is the highest level of the higher education in Slovakia. The aim of the Doctoral Programme is to prepare the student for independent, creative scientific & research work by giving the student comprehensive theoretical knowledge and mastery of the methods of scientific work.

2.1 Study programmes – curriculum, list of subjects

2.1.1 Bachelor Degree Programme Informatics

1st year of study

Semester	Code	Subject	Hours per week	ECTS	Department
1	*Core subjects*				
	5BF101	Algebra	2-2-0	5	DMMOR
	5BI137	Informatics 1	2-2-2	7	DST
	5BF115	Mathematics for Informatics	2-2-0	7	DST
	5BL133	Introduction to studies	2-0-2	3	DIN
	5BE101	Basics of Economic Theory	2-2-0	5	DMME
	Elective subjects				
	5BS121	Introduction to Operating Systems	0-2-0	5	DI
	5BI111	Practice of Programming 1	0-0-2	1	DST
	5BL115	Foreign Language	0-2-0	3	FHSc_DL
	5BL109	Physical Education	0-0-2	1	IPE
2	*Core subjects*				
	5BA126	Algorithmic Graphs Theory	2-2-0	5	DMMOR
	5BA124	Discrete Probability	2-2-1	6	DMMOR
	5BE104	Economic and Law Aspects of Business	2-2-0	5	DMME
	5BI138	Informatics 2	2-2-2	7	DI
	5BN110	Principles ICS	2-0-2	5	DIN
	Elective subjects				
	5BF116	Practice of Mathematics	0-2-0	1	DMMOR
	5BI136	Practice of Programming 2	0-0-2	1	DI
	5BI158	Linux - Basics	0-0-2	2	DIN
	5BL116	Foreign Language	0-2-0	3	FHSc_DL
	5BL110	Physical Education	0-0-2	1	IPE
	5BL144	Physical Education Training Camp 1	0-1-0	2	IPE

Recommended number of credits in the 1st year of study: 60
Minimum number of credits to the next grade: 40
Minimum number of credits for registration in the same year: 20

2nd year of study

Semester	Code	Subject	Hours per week	ECTS	Department
3	*Core subjects*				
	5BI139	Informatics 3	2-1-2	6	DST
	5BH101	Logical Systems	2-0-2	5	DTC
	5BF117	Mathematical Analysis 1	2-2-1	6	DMMOR
	5BI125	Assembly languages	2-0-2	5	DMMOR
	Additional subjects (choose at least one)				
	5BN103	Computer Networks 1	2-0-4	5	DIN
	5US104	Analysis of Processes	2-0-2	5	DST
	Elective subjects				
	5BE109	Economy of Enterprise	2-1-0	5	DMME
	5BI145	Graphics in Computers Applications	1-0-3	4	DIN
	5BI133	Spreadsheets	2-0-2	4	DI
	5BL117	Foreign Language	0-2-0	3	FHSc_DL
	5BE117	Small and Medium Entrepreneurship	2-2-0	5	DMT
	5BE121	Profession: Entrepreneur 1	1-2-0	2	DMME
	5BN113	Basics of Network Theory 1	2-0-2	6	DIN
	5BS111	UNIX - Development Environment	1-0-3	4	DMMOR
	5BL111	Physical Education 3	0-0-2	1	IPE
	5BL137	Physical Education Training Camp 2	0-1-0	2	IPE
4	*Core subjects*				
	5UI124	Algorithms and Data Structures 1	2-0-2	5	DMMOR
	5BH118	Digital Computers	3-0-1	5	DTC
	5BI106	Database Systems	2-0-2	5	DI
	5BA122	Discrete Optimisation	2-0-2	5	DMMOR
	Additional subjects (choose at least one)				
	5BF114	Mathematical Analysis 2	2-2-1	6	DMMOR
	5BN104	Computer Networks 2	3-0-1	5	DIN
	5BA130	Probability and Statistic	2-0-2	5	DMMOR
	5BI146	Software Modelling	2-0-2	5	DST
	Elective subjects				
	5BI144	Animation in Computers Applications	1-0-3	4	DIN
	5UI126	Electronic Processing and Documents Presentation	2-0-2	4	DMMOR

	5BE108	Macroeconomics	2-2-0	5	DMME
	5BI152	Metaprogrammimng	2-0-2	5	DST
	5BA108	Numerical Methods	2-0-2	3	DMMOR
	5BE122	Profession: Entrepreneur 2	1-2-0	3	DMME
	5BL142	Sociology	1-2-0	5	DMT
	5BI148	Techniques of Programming 1	0-0-4	4	DI
	5BL118	Foreign Language 4	0-2-0	3	FHSc_DL
	5BL112	Physical Education 4	0-0-2	1	IPE

Recommended number of credits in the 1st year of study: 120
Minimum number of credits to the next year: 80
Minimum number of credits for registration in the same year: 60

3rd year of study

Semester	Code	Subject	Hours per week	ECTS	Department
5	*Core subjects*				
	5UA113	Modelling and Simulation	2-0-2	5	DMMOR
	5BS101	Operational Systems	2-0-2	5	DI
	5US103	Software Engineering	2-0-2	5	DI
	5US109	Development of web application and Intranet	2-0-2	5	DST
	Additional subjects (choose at least one)				
	5BA117	Data, Information, Knowledge	2-0-2	5	DMME
	5BA119	Modelling and Optimization	2-0-2	5	DMMOR
	5BN111	Computer Networks 3	2-0-2	5	DIN
	Elective subjects				
	5BI131	Database systems - Access	2-0-2	4	DI
	5BF119	Mathematical analysis 3	2-2-1	6	DMMOR
	5US107	Multimedia information systems	2-0-2	6	DMMOR
	5BE107	Corporate Finance	2-2-0	5	DMME
	5BH121	Technical Components of PC	0-0-2	3	DTC
	5BI151	Techniques of Programming 2	0-0-3	4	DMMOR
	5BL113	Physical Education 5	0-2-0	1	IPE
	5BI129	Basic Programming in Windows	2-0-2	4	DST
	5BN115	Basics of Networks Theory 2	2-0-2	6	DIN

6	*Core subjects*				
	5BZ001	Bachelor Project	0-0-8	12	G
	5BL140	English Language 1	0-0-0	3	ILE
	5BP1I3	Internship	0-0-0	5	G
	Elective subjects				
	5BA110	Scheduling and sequencing	2-2-0	5	DMMOR
	5BI110	Advanced application development	2-0-2	6	DI
	5BI122	Software tools for Engineers (Open Source)	1-0-3	4	DMMOR
	5BL114	Physical Education 6	0-2-0	1	IPE
	5BS104	Information and Control Systems in Transport	2-0-1	3	DST
	5BS112	Unix Implementations - LINUX	2-0-2	6	DMMOR
	5UA102	Game theory	2-2-0	5	DMMOR
	5UI102	Reliability Theory	2-0-2	5	DI
	5UM122	Managerial Communication	2-2-0	5	DMT

Minimum number of credits from groups of Compulsory Optional Courses for the whole study: 20
Minimum number of credits to conclude the Bachelors Programme of study: 180
Minimum number of credits for registration in the same year: 100

2.1.2 Bachelors Degree Programme Computer engineering

1st year of study

Semester	Code	Subject	Hours per week	ECTS	Department
1	*Core subjects*				
	5BF101	Algebra	2-2-0	5	DMMOR
	5BI137	Informatics 1	2-0-4	7	DST
	5BF117	Mathematical Analysis 1	2-2-1	6	DMMOR
	5BE101	Basics of Economic Theory	2-2-0	5	DMME
	5BF105	Basics of Physics	3-1-1	6	FEE
	Elective subjects				
	5BF109	Practice of Mathematics	0-2-0	1	DMMOR
	5BI111	Practice of Programming 1	0-0-2	1	DI
	5BL115	Foreign Language 1	0-2-0	3	ILE
	5BL109	Physical Education 1	0-0-2	1	IPE
2	*Core subjects*				
	5BF104	Electrical Circuits	2-2-0	5	DTC
	5BI138	Informatics 2	2-0-4	7	DST
	5BF114	Mathematical Analysis 2	2-2-1	6	DMMOR
	5BA130	Probability and Statistics	2-2-0	5	DMMOR
	5BN110	Principles ICS	2-0-2	5	DIN
	Elective subjects				
	5BL116	Foreign Language 2	0-2-0	3	ILE
	5BI158	Linux - Basics	0-0-2	2	DIN
	5BI136	Practice of Programming 2	0-0-2	1	DI
	5BL110	Physical Education 2	0-0-2	1	IPE
	5BL144	Physical Education Training Camp 1	0-1-0	2	IPE

Recommended number of credits in the 1st year of study: 60
Minimum number of credits to the next year: 40
Minimum number of credits for registration in the same year: 20

2nd year of study

Semester	Code	Subject	Hours per week	ECTS	Department
3	*Core subjects*				
	5BF107	Electronics	2-0-2	5	DTC
	5BH101	Logical Systems	2-0-2	5	DTC
	5BI125	Assembly Language Programming	2-0-2	5	DMMOR
	Additional subjects (choose at least one)				
	5BF119	Mathematical analysis 3	2-2-1	6	DMMOR
	5BI139	Informatics 3	2-1-2	6	DST
	5BN103	Computer Networks 1	2-0-4	5	DIN
	Elective subjects				
	5BE121	Profession: Entrepreneur 1	1-2-0	2	DMME
	5BI145	Graphics in Computers Applications	1-0-3	4	DIN
	5BL115	Foreign Language 1	0-2-0	3	ILE
	5BL109	Physical Education 1	0-0-2	1	IPE
	5BL137	Physical Education Camp 2	0-1-0	2	IPE
	5BN113	Basics of Networks Theory 1	2-0-2	6	DIN
4	*Core subjects*				
	5BH102	Messurement	2-0-2	5	DTC
	5BH105	Electronic systems	2-0-2	5	DTC
	5BH108	Automatic control theory 1	2-1-1	5	DTC
	5BH118	Digital Computers	3-0-1	5	DTC
	5BL104	Economic and law aspects of business	2-2-0	5	DMME
	5BL140	English language Bc.	0-0-0	3	ILE
	Additional subjects (choose at least one)				
	5BH124	Elements of Automation systems	2-0-2	5	DTC
	5BI106	Database Systems	2-0-2	5	DI
	5BN104	Computer Networks 2	3-0-1	5	DIN
	Elective subjects				
	5BL118	Foreign Language 4	0-2-0	3	ILE
	5BL142	Sociology	1-2-0	5	DMT
	5UI126	Electronic Processing and Documents Presentation	2-0-2	4	DMMOR
	5BL112	Physical Education 4	0-0-2	1	IPE
	5BA108	Numerical Methods	2-0-2	3	DMMOR

	5BE122	Profession: Entrepreneur 2	1-2-0	3	DMME
	5BF110	Functions of Complex Variable and Integral Transformation	2-1-1	4	DMMOR
	5BI144	Animation in Computers Applications	1-0-3	4	DIN

Recommended number of credits in the 1st year of study: 120
Minimum number of credits to the next year: 80
Minimum number of credits for registration in the same year: 60

3rd year of study

Semester	Code	Subject	Hours per week	ECTS	Department
5	*Core subjects*				
	5BH104	Digital Systems	2-0-2	5	DTC
	5BH119	Construction and Manufacturing of Electronical devices	1-0-3	4	DTC
	5BS101	Operational Systems	2-0-2	5	DI
	Additional subjects (choose at least one)				
	5BH113	Microcomputers and Applications	1-0-3	6	DTC
	5BI129	Basic Programming in Windows	2-0-2	4	DST
	5BS111	UNIX - Development Environment	1-0-3	4	DMMOR
	5US109	Development of web application and Intranet	2-0-2	5	DST
	Elective subjects				
	5BE117	Small and Medium Entrepreneurship	2-2-0	5	DMT
	5BH121	Technical Components of PC	0-0-2	3	DTC
	5BI107	Algorithms and Complexity	2-0-0	3	DI
	5BI131	Database systems - Access	2-0-2	4	DI
	5BL113	Physical Education 5	0-2-0	1	IPE
	5BN111	Computer Networks 3	2-0-2	5	DIN
	5BN115	Basics of Networks Theory 2	2-0-2	6	DIN
	5US107	Multimedia information systems	2-0-2	6	DMMOR
6	*Core subjects*				
	5BH120	Computer Engineering	2-0-4	7	DTC
	5BL140	English language Bc.	0-0-0	3	ILE
	5BZ1P1	Bachelor Project	0-0-8	12	G

	5BP1P3	Internship	0-0-0	5	G
	Additional subjects (choose at least one)				
	5BI110	Advanced application development	2-0-2	6	DI
	Elective subjects				
	5BI154	Mobile application development	2-0-2	5	DST
	5BL114	Physical Education 6	0-0-2	1	IPE
	5BS104	Information and Control Systems in Transport	2-0-1	3	DST
	5BS112	Unix Implementations - LINUX	2-0-2	6	DMMOR
	5UI102	Reliability Theory	2-0-2	5	DI
	5UM122	Managerial Communication	2-2-0	5	DMT

Minimum number of credits from groups of Compulsory Optional Courses for the whole study: 15
Minimum number of credits to conclude the Bachelors Programme of study: 180
Minimum number of credits for registration in the same year: 100

2.1.3 Bachelors Degree Programme Management

1st year of study

Semester	Code	Subject	Hours per week	ECTS	Department
1	*Core subjects*				
	5BE123	General Theory of Economics	2-2-0	5	DMME
	5BF101	Algebra	2-2-0	5	DMMOR
	5BI147	Informatics for Managers 1	2-0-2	5	DI
	5BM121	Management Presentation Skills	2-2-0	5	DMT
	5BM125	Management 1	3-2-0	6	DMT
	Additional subjects (choose at least one)				
	5BL103	Legal aspects of business 1	2-2-0	5	DMME
	Elective subjects				
	5BF109	Practice of Mathematics	0-2-0	1	DMMOR
	5BI111	Practice of Programming 1	0-0-2	1	DST
	5BL109	Physical Education 1	0-0-2	1	IPE
	5BL115	Foreign Language 1	0-2-0	3	ILE
2	*Core subjects*				
	5BE116	Business Economy	2-2-0	5	DMME
	5BE118	Marketing	2-2-0	5	DMT
	5BI142	Informatics for Managers 2	2-0-2	5	DI
	Additional subjects (choose at least one)				
	5BL146	Legal aspects of business 1	2-2-0	5	DMME
	5UI126	Electronic Processing and Documents Presentation	2-0-2	4	DMMOR
	Elective subjects				
	5BI136	Practice of Programming 2	0-0-2	1	DI
	5BI158	Linux - Basics	0-0-2	2	DIN
	5BL110	Physical Education 2	0-0-2	1	IPE
	5BL116	Foreign Language 2	0-2-0	3	ILE
	5BL144	Physical Education Training Camp 1	0-1-0	2	IPE

Recommended number of credits in the 1st year of study: 60
Minimum number of credits to the next year: 40
Minimum number of credits for registration in the same year: 20

2nd year of study

Semester	Code	Subject	Hours per week	ECTS	Department
3	*Core subjects*				
	5BE105	Financial Accounting	2-2-0	5	DMME
	5BE107	Corporate Finance	2-2-0	5	DMME
	5BF117	Mathematical Analysis 1	2-2-1	6	DMMOR
	5BL106	Psychology	2-2-0	5	DMT
	Additional subjects (choose at least one)				
	5BE125	Quality Management	2-2-0	5	DMT
	5BM123	Marketing Communication	2-2-0	4	DMME
	5UE115	Taxes and Budget	2-2-0	4	DMME
	Elective subjects				
	5BI131	Database systems - Access	2-0-2	4	DI
	5BI133	Spreadsheets	2-0-2	4	DI
	5BI145	Graphics in Computers Applications	1-0-3	4	DIN
	5BL111	Physical Education 3	0-0-2	1	IPE
	5BL117	Foreign Language 3	0-2-0	3	ILE
	5BL137	Physical Education Camp 2	0-1-0	2	IPE
	5IL101	Forensics 1	2-1-0	4	DE
4	*Core subjects*				
	5BE102	Microeconomy	2-2-0	5	DMME
	5BM116	Sociology	2-2-0	5	DMT
	5BA130	Operational Management	3-1-0	5	DMT
	Additional subjects (choose at least one)				
	5BA130	Probability and Statistic	2-0-2	5	DMMOR
	5BE108	Macroeconomics	2-2-0	5	DMME
	5BE120	Financial-Economical Analysis	2-1-1	4	DMME
	5BF114	Mathematical Analysis 2	2-2-1	6	DMMOR
	5BL136	Ethics in Entrepreneurship	2-2-0	5	DMT
	Elective subjects				
	5BI144	Animation in Computers Applications	1-0-3	4	DIN
	5BL112	Physical Education 4	0-0-2	1	IPE
	5BL118	Foreign Language 4	0-2-0	3	ILE
	5BM128	Digital marketing	2-0-2	3	DMT
	5IL102	Forensics	2-1-0	4	DE

Recommended number of credits in the 1st year of study: 120
Minimum number of credits to the next year: 80
Minimum number of credits for registration in the same year: 60

3rd year of study

Semester	Code	Subject	Hours per week	ECTS	Department
5	*Core subjects*				
	5BE117	Small and Medium Entrepreneurship	2-2-0	5	DMT
	5BM119	Fundamentals of Research in Management	2-2-0	5	DMT
	5BM127	Management of human resources	3-2-0	6	DMT
	5BS113	Information Systems of Enterprise	2-0-2	5	DMT
	Additional subjects (choose at least one)				
	5BA119	Modelling and Optimization	2-0-2	5	DMMOR
	5BM129	Marketing Tools and Applications	2-0-1	4	DMT
	5BS123	Communication Systems in Enterprise	2-0-2	4	DMT
	5UA113	Modelling and Simulation	2-0-2	5	DMMOR
	5UE113	Controlling	2-2-0	5	DMT
	Elective subjects				
	5BF119	Mathematical analysis 3	2-2-1	6	DMMOR
	5BL113	Physical Education 5	0-2-0	1	IPE
	5BL123	Foreign Language 5	0-2-0	3	ILE
	5US107	Multimedia information systems	2-0-2	6	DMMOR
6	*Core subjects*				
	5BL102	Foreign language Bc.	0-0-0	3	ILE
	5BP1M3	Internship	0-0-0	5	G
	5BZ1M1	Bachelor Project	0-0-8	12	G
	5BZ1M2	State Examination	0-0-0	4	G
	Additional subjects (choose at least one)				
	5BI146	Software Modelling	2-0-2	5	DST
	5BM120	Management 2	1-2-0	5	DMT
	Elective subjects				
	5BL114	Physical Education 6	0-2-0	1	IPE
	5BS104	Information and Control Systems in Transport	2-0-1	3	DST

Minimum number of credits from groups of Compulsory Optional Courses
for the whole study: 20
Minimum number of credits to conclude the Bachelors Programme of study: 180
Minimum number of credits for registration in the same year: 100

2.1.4 Master Degree Programme Information systems

1st year of study

Semester	Code	Subject	Hours per week	ECTS	Department
1	*Core subjects*				
	5II107	Advanced Database Systems	2-0-2	5	DI
	5II115	Algorithms and Data structures 2	2-0-2	5	DMMOR
	5IN109	Network optimization	2-0-2	5	DMMOR
	5IN125	Communication Technologies	2-0-2	5	DCN
	5IP1H1	Project 1	0-2-4	5	G
	Elective subjects				
	5II132	Design Patterns	2-1-1	5	DI
	5UA117	Queuing Theory	2-0-2	5	DMOOR
	5IL107	Physical Education 7	0-2-0	1	IPE
	5US104	Analysis of Processes	2-0-2	5	DST
2	*Core subjects*				
	5IA102	Theory of Information	2-0-2	5	DMMOR
	5II108	Discrete simulation	2-0-2	5	DMMOR
	5II112	Data Mining	2-0-2	5	DI
	5IS108	Architecture of Information Systems	2-0-2	5	DCN
	5IP1H2	Project 2	0-2-4	5	G
	Elective subjects				
	5IA108	Metaheuristics	2-0-2	5	DMMOR
	5II136	Computers Graphic 3D	2-0-2	5	DMMOR
	5IE112	Prognostics	2-0-2	5	DMME
	5II130	Techniques of Programming 3	0-0-4	4	DMMOR
	5IL108	Physical Education 8	0-2-0	1	IPE
	5UA102	Game theory	2-2-0	5	DMMOR
	5BA110	Scheduling and sequencing	2-2-0	5	DMMOR

Recommended number of credits in the 1st year of study: 60
Minimum number of credits to the next year: 40
Minimum number of credits for registration in the same year: 20

Data processing

Semester	Code	Subject	Hours per week	ECTS	Department
1	*Additional subjects (choose at least one)*				
	5BM125	Management 1	3-2-0	6	DMT
	5IE101	Theory of Enterprise	2-0-2	5	DMT
	5II113	Advanced object technologies	2-2-0	5	DST
	5UM111	Project Management	2-1-1	5	DMT
2	*Additional subjects (choose at least one)*				
	5II128	Database languages	2-0-2	5	DI
	5IS106	Geographical Information Systems	2-0-2	5	DMMOR
	5UI102	Reliability Theory	2-0-2	5	DI

Enterprise informatics

Semester	Code	Subject	Hours per week	ECTS	Department
1	*Additional subjects (choose at least one)*				
	5IE117	Econometric	2-0-2	5	DMME
	5IE115	Finance	2-2-0	5	DMME
	5BE105	Financial Accounting	2-2-0	5	DMME
	5BM125	Management 1	3-2-0	6	DMT
	5UM111	Project Management	2-1-1	5	DMT
2	*Additional subjects (choose at least one)*				
	5BE108	Macroeconomics	2-2-0	5	DMME
	5IE112	Prognostics	2-0-2	5	DMME
	5UI102	Reliability Theory	2-0-2	5	DI

Distributed and parallel systems

Semester	Code	Subject	Hours per week	ECTS	Department
1	*Additional subjects (choose at least one)*				
	5BM125	Management 1	3-2-0	6	DMT
	5IS111	Parallel Architectures and Algorithms	2-0-2	5	DI
	5UM111	Project Management	2-1-1	5	DMT
2	*Additional subjects (choose at least one)*				
	5IA108	Metaheuristics	2-0-2	5	DMMOR
	5UI102	Reliability Theory	2-0-2	5	DI

Image data processing

Semester	Code	Subject	Hours per week	ECTS	Department
1	*Additional subjects (choose at least one)*				
	5BM125	Management 1	3-2-0	6	DMT
	5UM111	Project Management	2-1-1	5	DMT
	5II127	Computer graphics	2-0-2	5	DMMOR
2	*Additional subjects (choose at least one)*				
	5II138	Digital Image Processing	2-0-2	5	DIN
	5II136	Computers Graphic 3D	2-0-2	5	DMMOR

2nd year of study

Semester	Code	Subject	Hours per week	ECTS	Department
3	*Core subjects*				
	5II117	Cryptography and Safety	2-0-2	5	DMMOR
	5IP1H4	Internship	0-0-0	5	G
	5IP1H1	Project 3	0-2-4	5	G
	Elective subjects				
	5IS109	Expert Systems	2-0-2	6	DMMOR
	5IL109	Physical Education 9	0-2-0	1	IPE
	5II123	Artificial Intelligence	2-0-2	5	DMMOR
4	*Core subjects*				
	5IL104	English language MSc.	0-0-0	3	ILE
	5IZ1H1	Master thesis	0-0-20	20	G
	5IZ1H2	State examination	0-0-0	10	G
	Elective subjects				
	5IS110	Programming of real-time systems	2-0-2	5	DI

Minimum number of credits from groups of Compulsory Optional Courses
for the whole study: 15
Minimum number of credits to conclude the Bachelors Programme of study: 120
Minimum number of credits for registration in the same year: 60

Data processing

Semester	Code	Subject	Hours per week	ECTS	Department
3	*Additional subjects (choose at least one)*				
	5II121	Operating Systems	2-0-2	5	DI
	5BS113	Information Systems of Enterprise	2-0-2	5	DMT

Enterprise informatics

Semester	Code	Subject	Hours per week	ECTS	Department
3	*Additional subjects (choose at least one)*				
	5II101	Fuzzy Sets and Neural Networks	2-0-2	5	DMMOR
	5BS113	Information Systems of Enterprise	2-0-2	5	DMT

Distributed and parallel systems

Semester	Code	Subject	Hours per week	ECTS	Department
3	*Additional subjects (choose at least one)*				
	5IS107	Parallel Programming	2-0-2	5	DI

Image data processing

Semester	Code	Subject	Hours per week	ECTS	Department
3	*Additional subjects (choose at least one)*				
	5II101	Fuzzy Sets and Neural Networks	2-0-2	5	DMMOR
	5II129	Programming in OpenGL	2-0-2	5	DMMOR

2.1.5 Master Degree Programme Computer engineering

1st year of study

Semester	Code	Subject	Hours per week	ECTS	Department
1	*Core subjects*				
	5IH109	Digital Signal Processing 1	2-0-2	5	DTC
	5IP1P1	Project 1	0-2-4	5	G
	5IH113	Technical Means of Control and Information Systems	2-0-2	5	DTC
	5IH111	Introduction to the Theory of Discrete Systems	2-2-0	5	DTC
	Additional subjects (choose at least one)				
	5II121	Operating Systems	2-0-2	5	DI
	5IS111	Parallel Architectures and Algorithms	2-0-2	5	DI
	5IH117	Interconnected embedded systems	3-0-1	5	DTC
	Elective subjects				
	5II119	Computer Speech Recognition	2-0-2	5	DTC
	5IL107	Physical Education 7	0-2-0	1	IPE
2	*Core subjects*				
	5IH102	Design of the Customer Integrated Circuits	2-0-2	5	DTC
	5IH106	Digital Data Transmission	2-0-2	5	DTC
	5IP1P2	Project 2	0-2-4	5	G
	Additional subjects (choose at least one)				
	5IH108	Digital Signal Processing 2	2-0-2	5	DTC
	5IA102	Theory of Information	2-0-2	5	DMMOR
	Elective subjects				
	5II140	Applications of Artificial Intelligence Methods	2-0-2	4	DTC
	5UI126	Electronic Processing and Documents Presentation	2-0-2	4	DMMOR
	5IL108	Physical Education 8	0-2-0	1	IPE
	5BA110	Scheduling and sequencing	2-2-0	5	DMMOR
	5IH110	Selected Methods of Signals Compressions	2-0-2	5	DTC

Recommended number of credits in the 1st year of study: 60
Minimum number of credits to the next year: 40
Minimum number of credits for registration in the same year: 20

2nd year of study

Semester	Code	Subject	Hours per week	ECTS	Department
3	*Core subjects*				
	5IN125	Communication Technologies	2-0-2	5	DCN
	5IP1P4	Internship	0-0-0	5	G
	5IP1P3	Project 3	0-2-4	5	G
	Additional subjects (choose at least one)				
	5II117	Cryptography and Safety	2-0-2	5	DMMOR
	5II113	Advanced object technologies	2-2-0	5	DST
	Elective subjects				
	5IH115	Applications of the microprocessors implemented into the FPGA devices	2-0-2	6	DTC
	5IL109	Physical Education 9	0-2-0	1	IPE
4	*Core subjects*				
	5IL104	English language MSc.	0-0-0	3	ILE
	5IZ1P1	Master thesis	0-0-20	20	G
	5IZ1P2	State examination	0-0-0	10	G
	Elective subjects				
	5II112	Data Mining	2-0-2	5	DI

Minimum number of credits from groups of Compulsory Optional Courses for the whole study: 15
Minimum number of credits to conclude the Bachelors Programme of study: 120
Minimum number of credits for registration in the same year: 60

2.1.6 Master Degree Programme Information management

1st year of study

Semester	Code	Subject	Hours per week	ECTS	Department
1	*Core subjects*				
	5IM127	Logistic	3-1-0	5	DMT
	5IE105	Management Accounting	2-2-0	5	DMME
	5IM121	Marketing Control	2-2-0	5	DMT
	5IP1M1	Project 1	0-2-4	6	G
	Additional subjects (choose at least one)				
	5IE117	Econometric	2-0-2	5	DMME
	5IM131	Process management	2-2-0	4	DST
	5US103	Software engineering	2-0-2	5	DI
	5IM129	Research in management	2-1-1	4	DMT
	Elective subjects				
	5IL107	Physical Education 7	0-2-0	1	IPE
2	*Core subjects*				
	5UM122	Managerial Communication	2-2-0	5	DMT
	5IM122	Managerial Information Systems	2-0-2	5	DMT
	5IM128	Managerial Decision-Making	2-2-0	5	DMT
	5IM126	International Management and Marketing	2-2-0	5	DMT
	5IP1M2	Project 2	0-2-4	5	G
	Additional subjects (choose at least one)				
	5IS108	Architecture of Information Systems	2-0-2	5	DCN
	5IM134	Innovation Management	2-2-0	4	DMT
	5IM130	Human Potential Motivating	2-2-0	4	DMT
	5IE112	Prognostics	2-0-2	5	DMME
	Elective subjects				
	5IE106	Capital and investment theory	2-2-0	4	DMME
	5IL108	Physical Education 8	0-2-0	1	IPE

Recommended number of credits in the 1st year of study: 60
Minimum number of credits to the next year: 40
Minimum number of credits for registration in the same year: 20

2nd year of study

Semester	Code	Subject	Hours per week	ECTS	Department
3	*Core subjects*				
	5IM117	Organizational Behaviour	2-2-0	5	DMT
	5IP1M3	Project 3	0-2-4	5	G
	5UM111	Project Management	2-1-1	5	DMT
	5IM109	Strategic Management	2-0-2	5	DMT
	Additional subjects (choose at least one)				
	5BA117	Data, Information, Knowledge	2-0-2	5	DMME
	5IM133	Financial Management	2-2-0	4	DMME
	5IM111	Management Games and Simulations	1-0-2	4	DMME
	Elective subjects				
	5IL109	Physical Education 9	0-2-0	1	IPE
4	*Core subjects*				
	5IL106	Foreign language MSc.	0-0-0	3	ILE
	5IZ1P1	Master thesis	0-0-20	20	G
	5IM132	Information Management	2-0-2	5	DMT
	5IP1M4	Internship	0-0-0	5	G
	5IZ1P2	State examination	0-0-0	10	G
	Elective subjects				
	5IS106	Geographical Information Systems	2-0-2	5	DMMOR
	5IM112	Quantitative Methods in Logistics	2-0-2	5	DMMOR

Minimum number of credits from groups of Compulsory Optional Courses for the whole study: 15
Minimum number of credits to conclude the Bachelors Programme of study: 120
Minimum number of credits for registration in the same year: 60

2.1.7 Master Degree Programme Applied Network Engineering

1st year of study

Semester	Code	Subject	Hours per week	ECTS	Department
1	*Core subjects*				
	5IN135	Access Networks	2-0-2	5	FEE
	5UI101	Programming Languages for Embedded Systems	2-0-2	5	DI
	5IP1S1	Project 1	0-2-4	5	G
	5IS115	Network Operating Systems	2-0-3	6	DIN
	5IN137	Communication Theory	3-0-3	7	DIN
	Elective subjects				
	5IN139	Advanced Routing in Infocom Networks	2-0-4	6	DIN
	5IL107	Physical Education 7	0-2-0	1	IPE
2	*Core subjects*				
	5IN122	Network Algorithmic	2-0-2	5	DIN
	5IP1S2	Project 2	0-2-4	5	G
	5IN116	Design of Networks 1	2-0-4	7	DIN
	5IN110	Theory of Networks	4-0-4	10	DIN
	Elective subjects				
	5IN124	Advanced Switching in Infocom Networks	2-0-5	6	DIN
	5IL108	Physical Education 8	0-2-0	1	IPE

Recommended number of credits in the 1st year of study: 60
Minimum number of credits to the next year: 40
Minimum number of credits for registration in the same year: 20

2nd year of study

Semester	Code	Subject	Hours per week	ECTS	Department
3	*Core subjects*				
	5II117	Cryptography and Safety	2-0-2	5	DMMOR
	5IN131	Optimizing Converged Networks	2-0-4	7	DIN
	5IP1S4	Internship	0-0-0	5	G
	5IP1P3	Project 3	0-2-4	5	G
	5IP111	Design of Networks 2	2-0-0	4	DIN

	Elective subjects				
	5IL109	Physical Education 9	0-2-0	1	IPE
4	*Core subjects*				
	5IL104	English language MSc.	0-0-0	3	ILE
	5IZ1S1	Master thesis	0-0-20	20	G
	5IZ1P2	State examination	0-0-0	10	G
	5IN114	Networks Integration	2-0-3	6	DIN

Minimum number of credits from groups of Compulsory Optional Courses
for the whole study: 15
Minimum number of credits to conclude the Bachelors Programme of study: 120
Minimum number of credits for registration in the same year: 60

2.1.8 Master Degree Programme Intelligent information systems

1st year of study

Semester	Code	Subject	Hours per week	ECTS	Department
1	*Core subjects*				
	5II115	Algorithms and Data structures 2	2-0-2	5	DMMOR
	5IN109	Network optimization	2-0-2	5	DIN
	5II107	Advanced Database Systems	2-0-2	5	DI
	5IP1I1	Project 1	0-2-1	5	G DMMOR
	Additional subjects (choose at least one)				
	5IA111	Computational modeling of systems	2-0-2	5	DMMOR
	5IE101	Theory of Enterprise	2-0-2	5	DMT
	Elective subjects				
	5US104	Analysis of Processes	2-0-2	5	DST
	5UA117	Queuing Theory	2-0-2	5	DMOOR
	5IL107	Physical Education 7	0-2-0	1	IPE
2	*Core subjects*				
	5IS108	Architecture of Information Systems	2-0-2	5	DCN
	5II108	Discrete simulation	2-0-2	5	DMMOR
	5IS106	Geographical Information Systems	2-0-2	5	DMMOR
	5IA108	Metaheuristics	2-0-2	5	DMMOR
	5IP1I2	Project 2	0-2-4	5	G
	Additional subjects (choose at least one)				
	5II112	Data Mining	2-0-2	5	DI
	5IA110	Implementation of Optimization Algorithms	2-0-2	5	DMMOR
	Elective subjects				
	5IS110	Programming of real-time systems	2-0-2	5	DI
	5II130	Techniques of Programming 3	0-0-4	4	DMMOR
	5IL108	Physical Education 8	0-2-0	1	IPE
	5UA102	Game theory	2-2-0	5	DMMOR
	5BA110	Scheduling and sequencing	2-2-0	5	DMMOR
	5UI102	Reliability Theory	2-0-2	5	DI

Recommended number of credits in the 1st year of study: 60
Minimum number of credits to the next year: 40
Minimum number of credits for registration in the same year: 20

2nd year of study

Semester	Code	Subject	Hours per week	ECTS	Department
3	*Core subjects*				
	5II101	Fuzzy Sets and Neural Networks	2-0-2	5	DMMOR
	5II117	Cryptography and Safety	2-0-2	5	DMMOR
	5IP1I4	Internship	0-0-0	5	G
	5IP1I3	Project 3	0-2-4	5	G
	Additional subjects (choose at least one)				
	5II132	Design Patterns	2-1-1	5	DI
	5UM111	Project Management	2-1-1	5	DMT
	Elective subjects				
	5IS109	Expert Systems	2-0-2	6	DMMOR
	5IL109	Physical Education 9	0-2-0	1	IPE
4	*Core subjects*				
	5IL104	English language MSc.	0-0-0	3	ILE
	5IZ1P1	Master thesis	0-0-20	20	G
	5IZ1P2	State examination	0-0-0	10	G

Minimum number of credits from groups of Compulsory Optional Courses for the whole study: 15
Minimum number of credits to conclude the Bachelors Programme of study: 120
Minimum number of credits for registration in the same year: 60

2.2 International Educational Projects

The faculty is member of consortium of the INNOSOC project – Innovative ICT Solutions for the Societal Challenges. The consortium consists from 11 HEI from eight countries:

- University of Zagreb, Croatia – coordinator
- Universitat Politechnica de Valencia, Spain
- University of Applied Science, Leipzig, Germany
- Szechenyi Istvan University, Gyor, Hungary
- University of Telecommunications and Post, Sofia, Bulgaria
- University of Žilina, Slovakia
- Technical University of Košice, Slovakia,
- Institut Mines-Télécom, Bretagne, France
- University of Oradea, Romania,
- University of Debrecen, Hungary
- Technical University Sofia, Bulgaria

The main objective of the INNOSOC project is to set up a transnational multidisciplinary intensive study program in the field of innovations based on informations and communication technology targeting societal challenges defined by Europe 2020 and Horizon 2020 programs.

The INNOSOC curricula, which will be available as multilingual open educatinal resource (OER) as well, consist of four main topic groups:

- "Innovation" as a core topic;
- intercultural topics, with focus on "Multicultural teams";
- ICT topics, with focus on "Innovative engineering based on ICT";
- student projects, with focus on "Case studies on how ICT can contribute to innovative societal development".

Student projects are based on the “blended” mobility approach and organized in two phases: (i) preparatory (virtual mobility); and (ii) execution phase (physical mobility). Physical mobility are implemented through three two-week workshops hosted by partner universities in 2016 (Zagreb), 2017 (Leipzig) and 2018 (Valencia). Workshop participants are professors (16 professors from 11 universities from 8 countries) and students (100 students from 11 universities from 8 countries) from partner universities.

Multilingual (on 8 EU languages) open course materials on innovation and entrepreneurship including case studies on how ICT can contribute to innovative societal development are made free to access through the project web site. In that way INNOSOC project has signifivant impact on national and EU level through serving on the long-term benefit of all citizens, academia and industry.

Other projects:

545750-EM-1-2013-1-FR-ERA MUNDUS EMA-21
iBRASIL – Innovative and inclusive Brazil
University coordinator: Assoc. Prof. Ing. Peter Fabián, PhD.

EACEA-44/2012
EU-Korea SMILES - Student Motilities in Intercultural, Language and ECVET Skills
University coordinator: Assoc. Prof. Ing. Peter Fabián, PhD.

543889-TEMPUS-1-2013-1-SE-TEMPUS-JPHES
Advanced Training and life Long learning Program in Applied Health Sciences
Head investigator: Prof. Ing. Elena Zaitseva, PhD.

544137-TEMPUS-1-2013-1-SK-TEMPUS-JPHES
Centres of Excellence for young RESearchers (CERES)
Head investigator: Prof. Ing. Karol Matiaško, PhD.

2.3 Students with excellent results

2.3.1 Students with excellent results in Bc. study

Student	Title of Bachelor Thesis	Supervisor
L. Fidesová	Experimental performance comparison of the Oracle and MySQL database systems	Ing. M. Kvet, PhD.
M. Gardlo	Bus Stop Minimization on a Bus Station	Assoc. Prof. RNDr. S. Palúch, PhD.
M. Majerčíková	Tool for comparison and synchronization of the database table data	Ing. M. Gubiš
D. Grygar	Transport Simulation Game	Assoc. Prof. Ing. J. Janech, PhD.
P. Chovanec	Employment opportunities for graduates of secondary schools and universities in the labour market in the district Spišská Nová Ves	Assoc. Prof. Ing. A. Kucharčíková, PhD.
D. Tumová	Proposal of motivation program for chosen company	Assoc. Prof. Ing. M. Blašková, PhD.
Ľ. Poliačková	Market research implemented for company KROS, Joint venture.	Assoc. Prof. Ing. V. Lendel, PhD.
D. Lonc	Process of obtaining customers' of economic programs improvement	Ing. V. Kocián
M. Micháliková	Customers' requirements monitoring	Assoc. Prof. Mgr. J. Soviar, PhD.

Student	Title of Bachelor Thesis	Supervisor
V. Brezáni	Proposal of value investing strategy on capital markets for individual investors.	Prof. Ing. J. Vodák, PhD.
P. Valíková	Proposal for the organization and the organizational structure of the project team Solar Team Slovakia.	Prof. Ing. J. Vodák, PhD.
M. Boteková	Use of ICT within the project management in the selected company.	Assoc. Prof. Ing. M. Kubina, PhD.
J. Vilhan	Marketing communications for company Hriňovské strojárne, Ltd.	Assoc. Prof. Ing. V. Lendel, PhD.
L. Formanek	Remote control for Yrobot platform	Ing. P. Šarafín
A. Bednár	Analysis of the light spectrum with the use of RGB sensor.	Ing. R. Žalman
R. Ďurec	Maze for Aeris system.	Ing. L. Čechovič, PhD.
B. Chilý	Control of display unit	Prof. Ing. J. Miček, PhD.

2.3.2 Students with excellent results in Master Study

Student	Title of Master Thesis	Supervisor
F. Kadáš	Advanced Compare Tool for XML files	Ing. Branislav Beňo, PhD.
M. Ďuračík	Integration of legacy systems into FRI system infrastructure	Ing. Patrik Hrkút, PhD.
J. Paľa	Compiler from JavaScript to Python	Assoc.Prof. Ing. Ján Janech, PhD.
R. Mažgut	System of automated tests using up-to-date software tools	Ing. Peter Kubík
M. Boháč	Spatial databases	Prof. Ing. Karol Matiaško, PhD.
K. Vrábľová	Design of model of transport network	Ing. Tomáš Majer, PhD.
A. Sládková	Software application for evaluation of economic effectiveness of capital project	Assoc. Prof. Ing. Mária Ďurišová, PhD.
A. Púchyová	High Volume Distributed Application Protocol Flow Generator -- Control Plane	Ing. Peter Palúch, PhD.
M. Kontšek	Implementation of Neighbour Session Restart Mechanisms in Quagga EIGRP	Ing. Peter Palúch, PhD.
A. Krištof	High Volume Distributed Application Protocol Flow Generator -- Data Plane	Ing. Peter Palúch, PhD.

Student	Title of Master Thesis	Supervisor
Ľ. Kaplán	Network data collection via probe implemented in Net FPGA board	Ing. Petr Ivaniga, PhD.
R. Babišová	Approaches to raise the efficiency of human capital in the chosen company	Assoc. Prof. Ing. Alžbeta Kucharčíková, PhD.
K. Bačinská	Possibilities of increasing the efficiency of human capital in the enterprise	Assoc. Prof. Ing. Alžbeta Kucharčíková, PhD.
M. Straská	Monitoring and assessment of inventory and material consumption	Assoc. Prof. Ing. Mária Ďurišová, PhD.
D. Moravčíková	Organizing of innovative activities in the company Good Request, Ltd.	Assoc. Prof. Ing. Viliam Lendel, PhD.
J. Mičechová	Design of solutions addressing problem areas in selected segments of small and medium enterprises using Business Intelligence	Assoc. Prof. Ing. Mária. Ďurišová, PhD.
M. Dorniaková	Modern methods for assessing business performance	Assoc. Prof. Ing. Mária Ďurišová, PhD.
Z. Kopasová	Proposing and improving motivation programs in chosen companies	Assoc. Prof. Ing. Martina.Blašková,PhD.
A. Kováčiková	Motivation and motivating of administrative staff in chosen company	Assoc. Prof. Ing. Martina Blašková ,PhD.
M. Olajec	Data collecting embedded system for locomotives	Ing. Peter Stopka
M. Špánik	Sensory system for the control of robotic arm movement.	Ing. Michal. Hodoň, PhD.
M. Bednár	Particle Filters in Robotics	Ing. Jana Milanová, PhD.

2.3.3 Some achievements of Faculty students in 2016

ACM ICPC – CERC, Central European Competition of programming in Zagreb

There were 67 teams from 7 European countries. Faculty presented in competition 3 teams.

Team	Students	Placement
Team N. 1	Tomáš Kuric, Matej Papík	45
Team N. 2	Martin Olešnaník, David Kuric, Milan Ondrašovič	47
Team N. 3	František Kajánek, Matúš Mrázik, Juraj Muráň	54

Figure 1 Faculty teams at ACM ICPC – CERC 2016

Social Impact Award

There were 40 projects subscribers to competition for neighborhood improvements. Final project BAKE§ENJOY – courses of tasteful and healthy cooking was presented from Faculty students of Master Program Information Management: Michaela Macháčková, Veronika Martoníková, Veronika Tomová, Petra Dobroňová.

Figure. 2 Members of BAKE§ENJOY team

Engineering Award 2016

Honorable mention for the Master Thesis was awarded on the conference Digital Europe in Bratislava in the frame of EU Slovak Republic Chair on the theses:

Master Thesis	Student
Sensory System for the Control of Robotic Arm Movement	Ing. Michal Špánik
Compiler from JavaScript to Python	Ing. Jozef Paľa

CISCO Outstanding Thesis Award 2016

In the frame of final competition student Bc. Juraj Muráň took third place in the category Bachelor Thesis and as a sole representative of Slovak Republic presented with success our Faculty.

Figure 3 Juraj Muráň – winner of third place at CISCO Outstanding Thesis Award 2016

Research Agency

Student Juraj **Macák** was the winner in competition for a new web Research Agency in Bratislava.

Figure 4 Juraj Macák – winner of the first place

ISTROBOT 2016

Electrotechnical Faculty of Slovak technical university in Bratislava organized competition ISTROBOT 2016 where our doctoral student Ing. Michal Chovanec gained first place in the category STOPAR 12 with his robot “motoko aftremath”.

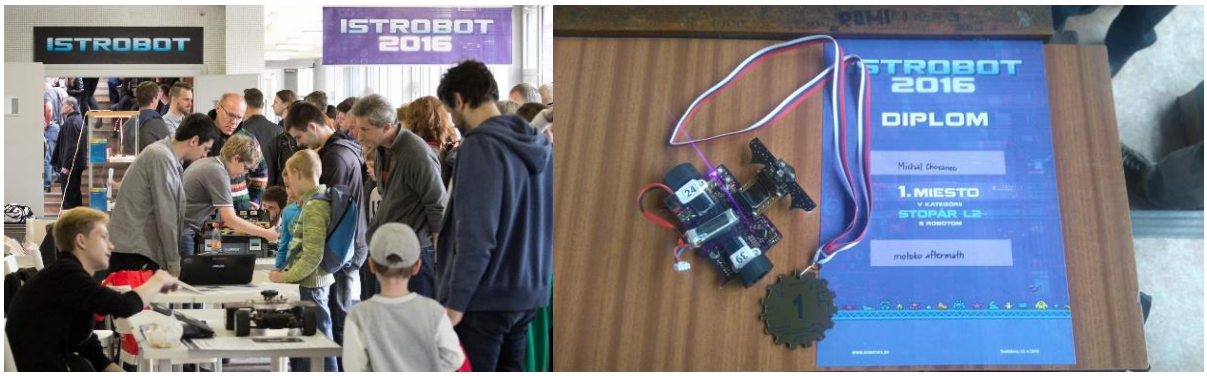


Figure 5 Winner robot and the diploma - ISTROBOT 2016

Price of the company Scheidt und Bachmann

Price for the outstanding Master thesis from the company Scheidt und Bachmann obtained student Ing Erika Ištoková.

Best semester work

In competition *Best semester work in subject “Java – Language and Applications Development”* as a winner was student Mikuláš Zaymus with application of subtitles download to films. Competition was organized by society Davinci Software in cooperation with our Faculty.

Figure 6 Submission of competition Best semester work in subject “Java – Language and Applications Development” prizes.

2.4 Students statistics

In November 2016, there were at the Faculty in Bachelors degree programme **1076** students, in Masters Degree programme **398** students and **37** doctoral students.

2.4.1 Number of students in Bc., MSc. and PhD. study

Statistics of bacheror study degree			
Study program / year	**1st year**	**2nd year**	**3rd year**
Informatics	279	233	254
Computer engineering	54	31	30
Management	87	67	41
Total	420	331	325
Total	**1076**		

Statistics of master study degree		
Study program / year	**1st year**	**2nd year**
Information systems	90	132
Information management	52	59
Computer engineering	30	226
Total	172	226
Total	**398**	

Statistics of PhD. study degree (full-time)			
Study program / year	**1st year**	**2nd year**	**3rd year**
Applied informatics	4	6	5
Management	3	4	4
Total	7	10	9
Total	**26**		

Further there are at the present 6 part-time doctoral students and 9 students with above standard study time at the faculty and 7 students began to study in 2016. Total: 48 students.

2.4.2 Overview of the number of students in last 5 years

Number of students in last 5 years - development					
	2012	2013	2014	2015	2016
Bc.	1011	1038	1040	1070	1076
MSc.	380	372	369	423	398
PhD.	55	49	39	37	48
Total	1438	1459	1448	1530	1522

3 Science and research

Ambitious of the Faculty's activities is to interconnect high quality education with scientific research results and development.

Faculty's orientation in the scientific area is connected not only to the traditional areas of information and communication systems theory, applied informatics, mathematical methods, automation and management, but as well to the possibility of large-scale interdisciplinary interaction, based on the broad-spectral erudition of teachers and scientific workers of the Faculty. Therefore, the research priorities are oriented to:

- Information sciences and knowledge systems
- Intelligent transportation systems
- Mathematical modelling in the ICT, communication systems and management
- Management (information / communication)
- Information technologies and information techniques.

The Faculty is involved in the following scientific areas:

- Mathematical modelling, simulation and optimization of:
  - databases
  - information and transportation communication networks
  - transport of goods and passengers
- Information and technical security of:
  - analysis and design of databases systems
  - analysis and design of multimedia systems
  - next generation communication networks
  - embedded and multi-agent systems
- Management of human and technical resources:
  - management, marketing, logistics and entrepreneurship
  - regulation automation systems

There are following long term research topics which should be developed in the future activities:

- Applied mathematics
- Multimedia technologies
- Management and logistics
- Economic management
- Modern educational techniques and technologies
- Information and communication technologies for society development
- Simulation tools and simulation of technologic activities
- Biomedical informatics

- Modelling of database, distributed data processing and data mining
- Management diagnostic, decision-making in complex systems by use of methods in applied mathematics and cybernetics with application in industry management and in management of complex systems
- Digital signal processing

3.1 The scientific orientations of the Faculty's Professors

Prof. **Karol Matiaško** is a lecturer, author, researcher and consultant, specializing in the areas of database systems and data processing. He started his career in informatics as a researcher at the Research Institute of Transport where he participated in the development of the core database system for the railway information system of former Czechoslovak State Railways. His work at the University involved his participation in the design and/or development of many information systems for both industry and academia. Currently his research interests include Data modelling and processing and also the area of Intelligent transport systems. His teaching covers the areas of Database systems, Data processing and Programming languages. He has an extensive list of publications including textbooks on database systems and programming languages

Prof. **Jaroslav Janáček** deals mostly with operations research and related disciplines as mathematical programming and transportation science. During the last decade, he focused on design of private and public service systems, where mathematical and informatics approach to the optimal system structure determination is based on solving discrete location problems. This research was continued with various generalizations of the approach to a many-to-many distribution system and a distribution system, where capacity limit and demand on compactness were imposed on the served areas. This part of research was performed on his own software. Recently he focused on so-called Public service system design and also on service systems, which provide fair access to a service. This research follows two streams, where the first one employs the above-mentioned developed software with the goal to adjust it so that it would be able to solve a public system design problem to exact optimum. The second stream makes use of commercial software (Xpress-IVE) and focuses on design of an approximate method, which would be able to solve very large instances of the p-median problem as a core of public service system design.

Prof. **Juraj Miček**'s research interests include mainly control and information systems, practical system design and digital signal processing with particular emphasis on noise reduction. His work has resulted in the development of many unique systems and devices for both domestic and overseas applications; this has also resulted in more than forty scientific publications. Practical aspects of the design of systems based on thirty-two bit microcontrollers were dealt with in his textbook Monolithic Microcomputers with ARM7Core, Architecture, Programming and Applications. The problems of noise and interference were analysed in his scientific monograph Noise in Signal Processing Systems. Presently he is working on the solution of problems and the development of applications in the field of

wireless sensory networks and multi-robotic systems. His teaching interests cover a wide range of subjects including signal processing, automatic control and information technology.

Prof. **Martin Klimo** received his diploma in telecommunication engineering from the University of Transport and Communication (UTC) Zilina in 1973. From 1973 to 1990 he was an Assistant Professor on Technical Cybernetics Department at UTC. Since 1990 he held position as an Associated Professor and in 1993 he was appointed head of the Department of Information Networks. From 1990 to 1993, and since 1997 he is a member of University Scientific Board. He is presently a Professor at the Department of Information Networks and a national delegate in ICT Committee of the H2020. His professional interests include Communication theory, Queuing theory and Fuzzy logic implementation by memristors.

Prof. **Matilda Drozdová** has been working in the area of information and communication services and information systems architecture since 1990. Currently, her research work is oriented to the implementation of ICT services to the real life, using of the principle Model Driven Engineering by the Architectures of the system creation. In the past she promotes e-education as one of the ICT services at the university level by means of various national and international projects. She was as the team member in four national projects of State program of research and development, project manager of five projects of Slovak ministry for education research agency. In the international projects she was the team member two Leonardo da Vinci projects, three Tempus projects, one 5FP project and one 6FP project.

Prof. **Štefan Hittmár** is a lecturer, author, researcher and consultant, specializing in the areas of management systems and information in decision making. He started his career in transport management as a researcher at the Research Institute of Transport where be participated in the development organizational, information and managerial processes in transport systems. There he was a member of team, head and contractor a lot of many scientific and practical projects, studies and research tasks. His work at the University has involved his participation in the preparing and development of Management theory and in the application it for both industry and educational process. Currently his research interest includes decision-making processes and also the area of modelling managerial activities. His teaching covers the areas problematic of the basic Management, Strategy management, Projecting of management system, Methodology of teaching process.

Activities of Prof. **Tatiana Kováčiková** are focused to converged telecommunication network architectures, services and protocols. She participated in a number of international research projects such as COST, EURESCOM and EC funded projects. Since 2002, she has been actively involved in standardization in the area of Next Generation Networks, Cloud Computing and Intelligent Transport Systems at ETSI (European Telecommunication Standardization Institute).

Prof. **Josef Vodák** is working as a lecturer, researcher and consultant in the field of performance management with a particular interest in small and medium enterprises. Within the area of performance management, he focuses on the strategic perspective of a company, its market and value delivery, collaborations with other companies and, as one of

the key areas, its human capital. For the future, he will continue to develop more advanced systems for company development and for increasing company value using concepts of performance management. He strongly believes that human capital is a key factor necessary for a success in company's performance management. He is also confident that performance management is a fruitful area for scientific as well as educational activities of a university, with potentially considerable impact on the business landscape.

Prof. **Vitaly Levashenko** finished Belarusian State University Informatics and Radio-electronics. He started career in Belarusian State Economic University. Since 2003 he works as Associated Professor at the University of Žilina, Faculty of Management Science and Informatics. His research interests include mainly creating of decision support systems based on fuzzy data and its practical application, reliability of databases. His teaching interest covers a wide range of subjects including knowledge discovery in databases and fuzzy logic. He has participated at different scientific and education projects, such as FP7, TEMPUS, APVV, VEGA, MVTS and etc.

Research interests of Prof. **Ľudmila Jánošíková** include strategic planning, transportation planning, and travel behaviour. She focuses on the development of mathematical models and application of operations research methods. Her teaching covers Assembly Language Programming too.

Prof. **Elena Zaitseva** areas of interst are are Reliability Analysis of Multi-State System and Importance Analysis. She has experience in Multiple-Valued Logic, Algebra Logic and Logic Design.

3.2 Scientific and research projects in 2016

In the following list, there are the most important research projects realized in 2016 at the Faculty:

3.2.1 Projects supported by European Commission programmes

FP7-PEOPLE-CIG-303580
Modelling and Optimization of Microfluidic Devices for Biomedical Applications
Head investigator: Assoc. Prof. Mgr. Ivan Cimrák, Dr.

FP7-ICT-2013-10
Regional Anaesthesia Simulator and Assistant
Head investigator: Prof. Ing. Elena Zaitseva, PhD.

H2020, 730844
Governance of the Interoperability Framework for Rail and Intermodal Mobility
Faculty coordinator: Assoc. Prof. Ing. Jakub Soviar, PhD.

H2020, 723989
Skills and competences development of future transporation professionals at the levels
Faculty coordinator: Assoc. Prof. Ing. Peter Márton, PhD.

544137-TEMPUS-1-JPHES
Centres of Excellence for Young Researches
Head investigator: Prof. Ing. Karol Matiaško, PhD.

530270-TEMPUS-1-2012-JPCR, 2012-2016
Green Computing &Communications
Head investigator: Prof. Ing. Elena Zaitseva, PhD.

543889-TEMPUS-1-2013-1-SE-TEMPUS-JPHES, 2013-2017
Advanced Training and Life Long Learning Program in Applied Medical and Health Sciences
Head investigator: Prof. Ing. Elena Zaitseva, PhD.

COST IC1401
Memristor – Devices, Models, Circuits and Applications
Faculty coordinator: Prof. Ing. Martin Klimo, PhD.

COST TU1302
Satellite Positioning Performance Assesment for Road Transport
Faculty coordinator: Ing. Michal Hodoň, PhD.

3.2.2 Projects supported by the Slovak Research and Development Agency

APVV-15-0179
Reliability of emergency systems on infrastructure with uncertain functionalityof critical element
Head investigator: Prof. RNDr. Jaroslav Janáček, PhD.

APVV-15-0751
Computational and mathematical modelling for development and optimization of micro fluidic cell sorting, isolation and manipulation devices
Head investigator: Assoc. Prof. Mgr. Ivan Cimrák, Dr.

APVV-14-0658
Optimization of urban and regional public personal transport
Head investigator: Assoc. Prof. RNDr. Stanislav Palúch, PhD.

DO7RP-0043-12 (project covers co-financing of 7FP project)
Regional Anaesthesia Simulator and Assistant (RASimAs)
Head investigator: Prof. Ing. Elena Zaitseva, PhD.

3.2.3 Science and Education Grant Agency – Ministry of Education, Science, Research and Sport of the Slovak Republic

1/0617/16
Diagnosis of Specifics and Determinants in Strategic Management of Sporting Organizations
Head investigator: Assoc. Prof. Ing. Milan Kubina, PhD.

1/0582/16
Economic optimization of network processes
Head investigator: Assoc. Prof. RNDr. Stanislav Palúch, PhD.

1/0463/16:
Economically efficient charging infrastructure deployment for electric vehicles in smart cities and communities
Head investigator: Assoc. Prof. Ing. Ľuboš Buzna, PhD.

1/0038/16
Decision Making Support based on Fuzzy Data
Head investigator: Prof. Ing. Vitaly Levashenko, PhD.

1/0498/14
New methods and algorithms of analysis of functions and reliability in complex systems
Head investigator: Prof. Ing. Elena Zaitseva, PhD.

1/0363/14
Innovation management - processes, strategies and efficiency
Head investigator: Prof. Ing. Štefan Hittmár, PhD.

1/0621/14
Marketing management in cooperative environment - Proposal of strategic cooperation management implementation model
Head investigator: Assoc. Prof. Mgr. Jakub Soviar, PhD.

1/0890/14
Stochastic modelling of decision-making processes in motivating human potential
Head investigator: Assoc. Prof. Ing. Martina Blašková, PhD.

1/0942/14
Dynamic modelling and soft techniques in economic values prediction
Head investigator: Ing. Lucia Pančíková, PhD

3.2.4 Culture and Education Grant Agency – Ministry of Education, Science, Research and Sport of the Slovak Republic

011ŽU-4/2014
Experimental Mathematics - how to see invisible
Head investigator: RNDr. Rudolf Blaško, PhD.

3.2.5 Other Research Projects

13/2015/FRI/R/150
Fare collection system testing
Partner: Scheidt&Bachmann s.r.o., Slovakia
Head investigator: Prof. Ing. Juraj Miček, PhD.

KIA15_013
Programme the robot – Yrobot Cup
Grant support: KIA Motors, Slovakia
Head investigator: Ing. Michal Hodoň, PhD.

KIA15_017
Artificial intelligence with a playful way
Grant support: KIA Motors, Slovakia
Head investigator: Assoc. Prof. Ing. Ján Kapitulík, PhD.

S 99/2015-O16
Analysis, design and implementation of modifications in system IS Kango modules for implementation of new pictograms
Partner: Railway Infrastructure Administration (SZDC), Czech Republic
Head investigator: Ing. Miroslav Gábor, PhD.

5/2015/FRI/R/190
Construction, debugging and delivery of addressable SW GTNv 4.9 to individual controlled domains
Partner: AZD Praha, Czech Republic
Head investigator: Assoc. Prof. Ing. Emil Kršák, PhD.

3/2015/FRI/R/190
Development and implementation of railway interlocking logic tables
Partner: AZD Praha, Czech Republic
Head investigator: Assoc. Prof. Ing. Emil Kršák, PhD.

2014et003
Wireless sensory network for following of state waterways

Grant support: Tatra banka
Head investigator: Assoc. Prof. Ing. Peter Ševčík, PhD.

3.3 New Professors, Associate Professors and Doctors of Philosophy

New Associate Professors:

Name of candidate	Title of Habilitation
Ing. Radoslav Jankal, PhD.	Quality Management in the Service Sector
Ing. Michal Kohání, PhD.	ICT Tools for Solving of Extensive Location Problem

Scientific Board of the Faculty, after successful defence of PhD. thesis, has granted with title PhD. following graduates of PhD. degree study programme:

Name	Theme of Dissertation Thesis	Supervisor
Mgr. Renáta Tóthová	Development and Implementation of Biomedical Models Appropriate to Modelling of Microfluidical Equipments	Assoc. Prof. Mgr. Ivan Cimrák, Dr
Ing. Ján Bendík	Design of Public Service Systems with Exact Optimization Core	Prof. RNDr. Jaroslav Janáček, PhD.
Ing. Michal Chovanec	Function Approximation in Algorithms Q-Learning Evaluation with Neural Network	Prof. Ing. Juraj Miček, PhD.
Ing. Boris Bučko	Architecture and Ontology Controlled by Model	Prof. Ing. Matilda Drozdová, PhD.
Ing. Slavomír Kavecký	Management of Grids Mediums	Assoc. Prof. Ing. Penka Martincová, PhD.
Ing. Zuzana Fabiánová	Quality of Public Service – Systems of Control in Organizational and Individual Efficiency	Assoc. Prof. Ing. Miroslav Hrnčiar, PhD.

3.4 Important publication of faculty members

Members of the Faculty of Management Science and Informatics have published in 2016 results of research activity in 198 publications. Some of the more significant titles there are in the following list:

3.4.1 Chapters in scientific monographs published abroad

KVET, M., VAJSOVÁ, M., MATIAŠKO, K.: *Complex data management in MRI results processing.*
In: Applications of computational intelligence in biomedical technology. - Cham: Springer International Publishing, 2016. - ISBN 978-3-319-19146-1 - pp. 119-141 - Studies in computational intelligence.

ZAITSEVA, E. [et al.]: *New methods for the reliability analysis of healthcare system based on application of multi-state system.*
In: Applications of computational intelligence in biomedical technology. - Cham: Springer International Publishing, 2016 ISBN 978-3-319-19146-1. pp. 229-251. Studies in computational intelligence.

CIMRÁK, I. [et al.]: *Mesh-based modelling of individual cells and their dynamics in biological fluids.*
In: Applications of computational intelligence in biomedical technology. - Cham: Springer International Publishing, 2016. ISBN 978-3-319-19146-1. pp. 1-28. Studies in computational intelligence.

3.4.2 University textbooks published in Slovak language

NEDELJAKOVÁ, I., VÁCLAVKOVÁ, M.: *Applied Informatics for Managers*, 1st Ed. - 2016. - CD-ROM, pp.118 - ISBN 978-80-554-1203-0.

VÁCLAVKOVÁ, M. [et al.]: *Informatics for Managers: Fundamentals of programming in Java language,* 1. Ed. – Žilina, University of Žilina, 2016. – pp. 313, ISBN 978-80-554-1207-8.

STANÍKOVÁ, Z.: *Introduction to Economy*, University of Zilina, - pp. 194 – ISBN 978-80-554-1149-1.

KUCHARČÍKOVÁ, A.,TOKARČÍKOVÁ, E.: *Fundamentals of Economy*, University of Zilina, pp.198, ISBN 978-80-554-1105-7.

VODÁK, J., SOVIAR, J., VARMUS, M.: *Marketing*, University of Zilina, 2016. – pp. 171 - ISBN 978-80-554-1242-9.

MÁRTON, P.: *Rail Yards: Approaches to Increasing of Operational Effectiveness*, University of Zilina, 2016. pp. 137, ISBN 978-80-554-1246-7.

3.4.3 Scientific papers in foreign research journals

ZAITSEVA, E, LEVASHENKO, V.: *Construction of a reliability structure function based on uncertain data*.
In: IEEE Transactions on Reliability. - ISSN 0018-9529. - Vol. 65, no. 4 (2016), s. 1710-1723.

KLIMO, M. et al.: *Implementation of a deep ReLU neuron network with a memristive circuit*
In: International journal of unconventional computing. - ISSN 1548-7199. - Vol. 12, no. 4 (2016), s. 319-337.

ŠUCH, O., BARREDA, S.: *Bayes covariant multi-class classification*
In: Pattern recognition letters. - ISSN 0167-8655. - Vol. 84 (2016), s. 99-106.

BUŠÍK, M..et al.: *Simulation study of rare cell trajectories and capture rate in periodic obstacle arrays*
In: Journal of Computational Science. - ISSN 1877-7503. - Vol. 17, special issue, part 2 (2016), online, s. 370-376.

NIELEN, L. et al.: *Memristive sorting networks enabled by electrochemical metallization cells*
In: International Journal of Unconventional Computing. - ISSN 1548-7199. - Vol. 12, no. 4 (2016), s. 303-317.

JANČIGOVÁ, I., CIMRÁK, I.: *Non-uniform force allocation for area preservation in spring network models*
In: International journal for numerical methods in biomedical engineering. - ISSN 2040-7939. - Vol. 32, no. 10 (2016), s. 2757 [11 s.].

ANDROULIDAKIS, I., LEVASHENKO, V., ZAITSEVA, E.: *An empirical study on green practices of mobile phone users*
In: Wireless Networks. - ISSN 1022-0038. - Vol. 22, iss. 7 (2016), s. 2203-2220.

KOCHLAN, M. et al.: *Multichannel recorder for low frequency signals : application of oscilloscope as integrated mobile service for a smartphone*
In: Mobile information systems [elektronický zdroj]. - ISSN 1574-017X. - Vol. 2016 (2016), online, article ID 8472063, [7] s.

KVAŠŠAY, M., LEVASHENKO. V., ZAITSEVA, E*.: Analysis of minimal cut and path sets based on direct partial Boolean derivatives*
In: Proceedings of the institution of mechanical engineers: Part O - Journal of risk and reliability. - ISSN 1748-006X. - Vol. 230, no. 2 (2016), pp. 147-161

CEBECAUER, K., BUZNA, Ľ.: *Effects of demand estimates on the evaluation and optimality of service centre locations*

In: International journal of geographical information science. - ISSN 1365-8816. - Vol. 30, iss. 4(2016), pp. 765-784.

JANÁČEK, J., KVET, M.: *Sequential approximate approach to the p-median problem*
In: Computers & industrial engineering. - ISSN 0360-8352. - Vol. 94 (2016), pp. 83-92.

MANSSON D. H. et al.: *Young adults' trait affection given and received as functions of hofstede's dimensions of cultures and national origin*
In: Journal of intercultural communication research. - ISSN 1747-5759. - Vol. 45, iss. 5 (2 September 2016), s. 404-418.

JANÁČEK, J., KVET, M.: *Semi-fair design of emergency service system with failing centers*
In: Central European Journal of Operations Research. - ISSN 1613-9178.

CZIMMERMANN, P.. *Generalisations of hypomorphisms and reconstruction of hypergraphs*
In: Craphs and combinatorics. - ISSN 0911-0119. - Vol. 32, iss. 3 (2016), s. 887-901

JANÁČEK, J., KVET, M.: *Min-max optimization and the radial approach to the public service system design with generalized utility*
In: Croatian operational research review. - ISSN 1848-0225. - Vol. 7, no. 1 (2016), s. 67-79.

SMATANÍK, V., MATIAŠKO, K.: *Semi structured data information retrieval using ontology*
In: Polish journal of applied sciences - ISSN 2451-1544. - Vol. 1, no. 1, pp. 20-22.

JACKOVÁ, A.: *Modern tools of transport organization management*
In: Ad Alta: Journal of interdisciplinary research. ISSN 1804-7890. - Vol. 6, (2016), pp. 22-25.

HOLUBČÍK, M.: *Case of improving logistics processes by cooperation management - case of Sipe Ltd.*
In: Logi: Scientific journal on transport and logistics. ISSN 1804-3216. Vol. 7, No. 1 (2016), pp.61-71

ŠKUTCHANOVÁ, Z. et al.: *Knowledge and their impact on strategy*
In: AD ALTA: Journal of interdisciplinary research. - ISSN 1804-7890. - Vol. 5, pp. 74-77.

BLASKOVA, M., FIGURSKA, I.: *Model of knowledge, talent, wisdom and personality competencies*
In: International Business Management. - ISSN 1993-5250. - Vol. 9, pp. 1431-1446.

HITTMÁR, Š., SROKA, W.: *Business ethics in Central European countries: a case study of Poland and Slovakia*

In: New trends in management and production engineering: regional, cross-border and globalperspectives: scientific monograph. - Aachen: Schaker Verlag, 2016. - ISBN 978-3-8440-4203-0. - pp. 249-261

HRNČIAR, M., MADZÍK, P.: *3D view of issues of quality in higher education*
In: Total Quality Management & Business Excellence. - ISSN 1478-3363. - Vol. 26

ŠKUTCHANOVÁ, Z. (et al.).: *Knowledge and their impact on strategy*
In: AD ALTA: Journal of interdisciplinary research. - ISSN 1804-7890. - Vol. 5, iss. 2, CD-ROM, pp. 74-77.

3.4.4 Scientific papers in Slovak research journals

CHOCHLÍK, M.: *Implementing the factory pattern with the help of reflection*
In: Computing and Informatics. - ISSN 1335-9150. - Vol. 35, no. 3 (2016), s. 653-686.

BOHACIK, J.: *Decision support tool for current weather and weather forecast using the Android system*
In: Journal of Information Technologies - ISSN 1337-7469. - Vol. 9, no. 2 (2016), pp. 1-7.

HOLUBČÍK, M.: *Cooperation as a base for synergy*
In: Exclusive e-JOURNAL: Economy & Society & Environment. – ISSN 1339-4509. - Is. 1 (2016), pp. 5

PÚČKOVÁ, K., ŠKUTCHANOVÁ, Z.: *Knowledge as an important element of the innovation performance of companies in EU27*
In: Journal of information, control and management systems. - ISSN 1336-1716. - Vol. 13, No. 2, pp. 139-144.

SZABO, J.: *Comparison of methods for generating initial solution for simulated annealing*
In: Central European researcher's journal. - ISSN 2453-7314. Vol. 2, No. 1 (2016), pp. 37-41.

KUBINA, M., KOMAN, G.: *Big data technology and its importance for decision-making in enterprises*
In: Communications : scientific letters of the University of Žilina. - ISSN 1335-4205. - Vol. 18, no. 4 (2016), s. 129-133

CZIMMERMANN, P.: *Location problems in transportation networks*
In: Communications : scientific letters of the University of Žilina. - ISSN 1335-4205. - Vol. 18, no. 3 (2016), s. 50-53.

KAVECKY, S., MARTINCOVA, P.: *Ad hoc grid resource management: grid security*.
In: Communications : scientific letters of the University of Žilina. - ISSN 1335-4205. - Vol. 18, no. 3 (2016), s. 41-49.

BORCINOVA, Z., PESKO, S.: *New exact iterative method for the capacitated vehicle routing problem*
In: Communications : scientific letters of the University of Žilina. - ISSN 1335-4205. - Vol. 18, no. 3 (2016), s. 19-21.

SUBBOTIN, S..et al.: *Diagnostic rule mining based on artificial immune system for a case of uneven distribution of classes in sample*
In: Communications : scientific letters of the University of Žilina. - ISSN 1335-4205. - Vol. 18, no. 3 (2016), s. 3-11.

JANÁČEK, J., KVET, M.: *Min-max robust emergency service system design*
In: Communications : scientific letters of the University of Žilina. - ISSN 1335-4205. - Vol. 18, no. 3 (2016), s. 12-18

3.4.5 Papers in Proceedings of Foreign Scientific Conferences

DROZDOVA, M. et al.: *Transformation in model driven architecture*
In: Information systems architecture and technology: Proceedings of 36th international conference on Information systems architecture and technology - ISAT 2015. Part I. - Springer, 2016. - ISBN 978-3-319-28553-5. - pp. 193 - 203 Vol. 429.

ŠARAFÍN, P. et al.: *Self-tuning input shaper modelling*
In: Information and digital technologies 2016, Proceedings of the international conference: 5-7 July 2016, Rzeszow, Poland. - IEEE, 2016. - ISBN 978-1-4673-8860-3.

OLESNANIKOVA, V. et al.: *Water level monitoring based on the acoustic signal using the neural network*
In: Information and digital technologies 2016, Proceedings of the international conference 5-7 July 2016 Rzeszow, Poland. - IEEE, 2016. - ISBN 978-1-4673-8860-3. - pp. 203 - 206.

4 Overview of important events at the faculty in 2016

Y-Robot in the broadcasting of Slovak Radio and Television (RTVS)

Research team from Department of Technical Cybernetics (DTC) is developing open hardware and open software robot platform for secondary schools. Aim of this activity is to increase of student interest in the ICT oriented study programs at universities. Y-Robot, as the project is called, is already four years alive. Network of Slovak secondary school was developed. Contest of robot developers is organized annually.

Figure 7 Y-robot in television

Meeting of the Working Party of Structural Measures

Meeting of the working party of structural measures took place in the campus of the University of Žilina. This event was organized under the auspices of deputy prime minister's office for investments and informatization of the Slovak Republic, within the Slovak Presidency of the Council of the European Union and Directorate General for Regional and Urban Policy of the European Commission.

Microsoft Road Show at the Faculty of Management Science and Informatics
October 4th 2016

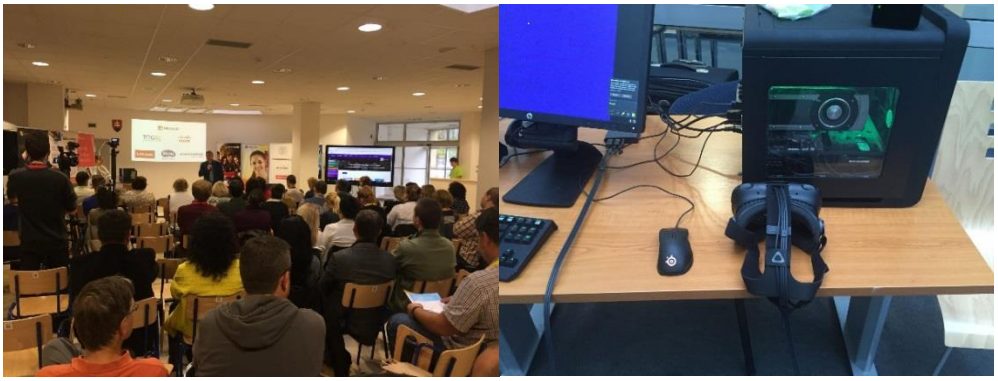


Figure. 8 Microsoft Roadshow 2016

*Autumn competition *Engineering Academic Challenge**

The competition started in October 10th 2016 and took five weeks.

Best master degree thesis content - results

Master degree thesis of our former students - Ing. Michal Špánik and Ing. Jozef Paľa - were awarded by the honourable mentions. Award was granted in frame of content of Slovak faculties oriented to telecommunication and informatics, in frame of third volume of this content. Ceremony of awards granting will happen at October 17th 2016, in frame of first day of Digital Europe conference.

Faculty stand in Slovak Village in ICT Proposers Day 2016 in Bratislava

Researchers from Faculty of Management Science and Informatics took part at ICT Proposers' Day 2016 in Bratislava, Slovakia on 26 and 27 September during a networking event promoting European ICT Research & Innovation and focusing on the Horizon 2020 Work Programme for 2016-17.

EURNEX association meeting

Assoc. Prof. Peter Márton took part in meeting of association. EURNEX, the EUropean rail Research Network of Excellence, is an association representing European institutional scientific knowledge, research and education. During meeting, on Monday June 19th 2016, at Technical University of Berlin, topics of future activities, e.g. project proposals for H2020, were discussed. Faculty of Management Science and Informatics is active member of EURNEX association from summer 2016. University of Žilina is founding member of EURNEX association, in frame of 6FP research project.

2016 - Instructor Excellence Expert Award - NetAcad Cisco

Our colleagues - Mr. Peter Paluch, Mr. Ondrej Škvarek and Mr. Pavel Segec - were awarded as Experts in frame of Instructor Excellence Award of Cisco Networking Academy program, for year 2015. Level Expert - top 10% of all instructors in the world. Cisco Networking Academy CNA&ITC Žilina was founded in 2000. It is in position of Instructor Training Centre too (from 2011).

ACCENTURE day at the Faculty

Faculty of Management Science and Informatics was place of interesting event at Wednesday April 27th. Accenture Company organized for faculty students several workshops about actual IT trends:

- Biometrics Hands-on Lab: Web Front-end in Angular
- Test Driven Development: Coding Dajo
- Internet of Things: Let’s code things that can send and move!
- Agile Estimations

Workshops and meeting with students have continued with informal BBQ party.

Figure 9 Accenture Day 2016

Guest lecture in Sustainable management

SUSTAINABLE MANAGEMENT - Trends and innovations
Lecturer: Prof. Jorma Imppola (Seinäjoki University of Applied Sciences – Finland)
Wednesday 2.3.2016, 8.00 - 9.40 AM, FRI, C9 (RC009)

Lectures of Dr. Josif Androulidakis from University of Ioannina, Greece

Dr. Androulidakis closed his research stay at the Faculty of Management Science and Informatics financed by the National Scholarship Programme of the Slovak Republic.
Lectures topics: Locating malicious or spoofed SMS in mobile
Tuesday October 25th 2016 - 10:00, Information Protection and Privacy Safeguarding

Guest lectures of Prof. Gestring and Prof. Kamienski from HTW Dresden, Germany

Lectures topics: Life cycle and supply chain management of German companies – October 27th

GISday 2016

University of Žilina hosted first time the world GIS event – GISday (November 16th). Lecturers from ArcGEO Bratislava company, OLTIS Slovakia company, Faculty of Civil Enginnering, Faculty of Operation and Economics of Transport a Communications and Faculty of Management Science and Informatics prepared series of lectures for students from secondary schools and from bachelor degree study programs of University of Žilina.

Lecture titles:

- What is GIS? Current trends. - ArcGEO Bratislava
- Where is my train? Web maps for Slovak railways. - OLTIS Slovakia s.r.o.
- Map, labyrinth of coordinates - Faculty of Civil Enginnering, UNIZA
- Principles of remote sensing by airplanes - Faculty of Operation and Economics of Transport and Communications

Guest lectures of Prof. Lazarević from University of Belgrade, Faculty of Organizational Sciences

Prof. Lazarević was invited to the Faculty of Management Science and Informatics of the University of Žilina in frame of the teacher mobility of Erasmus+ Partner Countries program. Lecture topics and dates:

- Monday 12.12.2016 - Dynamic Data Structures
- Tuesday 13.12.2016 - Recursion
- Tuesday 13.12.2016 - Modular Programming and Pointers
- Thursday 15.12.2016 - Top-Down Program Design with Functions

5 Departments of the faculty

5.1 Faculty staff statistics

As far as the required qualification structure of the pedagogical staff at the Faculty is concerned, the situation seen within the University‘s context is shown in following table. It shows current number of employees at the Faculty and its development in according to categories within the period 2012- 2016.

Category / year	2012	2013	2014	2015	2016
Professors	8	8	9	12	13
Guest Professors	-	-	-	-	-
Assoc. Prof.	18	22	31	28	23
Senior Lecturers PhD.	58	57	53	55	54
Senior Lecturers	7	6	1	2	1
Assistants	-	-	-	-	-
Lectors	3	2	5	3	3
Research staff	5	4	4	3	2
Tech. Admin. Staff	44	36	42	23	23
Total	**143**	**135**	**146**	**125**	**119**

Within the space of year 2016 the Faculty has accepted into pedagogical and scientific staff following members:

Ing. Marek Kvet, PhD.,

Ing. Michal Chovanec, PhD.,

Ing. Michal Kochláň.

In the same period following members left the Faculty:

Ing. Jana Magdolenová, PhD.,

Assoc.Prof.Ing. Karol Grondžák, PhD.,

Prof.Ing. Ivan Hanulliak, PhD.,

Ing. Peter Palúch, PhD.,

Ing. Matúš Chochlík, PhD.

5.2 Department of Mathematical Methods and Operations Research

Head of Department:
Prof. Ing. Ľudmila Jánošíková, PhD.
Tel.: +421-41-513 42 00
Fax: +421-41-565 10 15
e-mail: ludmila.janosikova@fri.uniza.sk

Administrative:
Ing. Ľubica Michálková
Tel.: +421-41-513 42 01
Fax: +421-41-565 10 15
e-mail: lubica.michalkova@fri.uniza.sk

Department members:

Prof. RNDr. Jaroslav Janáček, PhD.
Assoc. Prof. Ing. Ľuboš Buzna, PhD.
Assoc. Prof. Ing. Peter Fabián, PhD.
Assoc. Prof. Ing. Norbert Adamko, PhD.
Assoc. Prof. RNDr. Stanislav Palúch, PhD.
Assoc.Prof. RNDr. Štefan Peško, PhD.
Assoc.Prof. Ing. Peter Márton, PhD.
Assoc.Prof. Ing. Michal Koháni, PhD.
RNDr. Ida Stankovianska, PhD.
RNDr. Aleš Kozubík, PhD.
RNDr. Alžbeta Klaudinyová
Mgr. Peter Czimmermann, PhD.
Mgr. Lýdia Gábrišová, PhD.
RNDr. Alžbeta Szendreyová, PhD.
Ing. Peter Tarábek, PhD.
Ing. Peter Jankovič, PhD.
Ing. Tomáš Majer, PhD.
Ing. Michal Lekýr, PhD.
RNDr. Július Rebo, PhD.
RNDr. Rudolf Blaško, PhD.
RNDr. Zuzana Borčinová

Doctoral full-time students:

Mgr. Miloš Herda - Parallel Metaheuristic for Capacitated Location Problems
Mgr. Rastislav Briestenský - Use of Game Theory in Managerial Decision-Making
Ing. Jaroslav Szabo - Metaheuristic in Schedule Problematic

Doctoral part-time students:

Ing. Roman Hajtmanek - Modelling of Uniform Schedules in Conditions of Uncertainty
RNDr. Zuzana Borčinová - Robust Models in Distribution Problems

Laboratories:

- Laboratory of GIS
- Laboratory of Discrete Simulation Methods
- Laboratory of Multimedia Information Systems

Scientific orientation of the Assoc. Professors at the Department:

Assoc. Prof. Ing. Ľuboš Buzna, PhD.

Application of optimization methods to transportation systems, distribution logistics and complex systems. Projects addressing the civil protection against natural disaster, and protection of critical infrastructures.

Assoc. Prof. Ing. Peter Fabián, PhD.

Applied informatics oriented to Multimedia information systems, Geographic information systems, Applied artificial intelligent in transport. Participation in many international projects EU as researcher and coordinator.

Assoc. Prof. Ing. Norbert Adamko, PhD.

Scientific activities are focused on computer simulation of transportation logistic systems and agent based simulation architectures. Design and development of simulation tools for microscopic modelling of transportation terminals (e.g. railway yards, production facilities, container terminals, etc.).

Assoc. Prof. RNDr. Stanislav Palúch, PhD.

Applied mathematics, Graph theory, Discrete optimizations and their application in transport, Cryptography, Theory of information, Scheduling theory

Assoc. Prof. Ing. Peter Márton , PhD.

Decision support systems for operation of freight railways, Modelling and simulation, GIS

Assoc. Prof. Ing. Štefan Peško, PhD.

Applied mathematics, Graph theory, Discrete optimizations and their application in transport, Scheduling theory

Assoc. Prof. Ing. Michal Kohání, PhD.

Operations research, Optimization of transportation networks, Mathematical programming, Implementation of optimization algorithms

Bachelor thesis

No.	Student	Theme	Supervisor
1.	P. Turcer	Open Source Cloud file storage solutions	Mgr. M. Kaukič, PhD.
2.	T. Straka	Interactive timetable editor	Assoc. Prof. Ing. M. Kohání, PhD.
3.	M. Janovec	Chemical Reaction Optimisation (CRO) algorithm for the p-median problem	RNDr. A. Szendreyová, PhD.
4.	T. Hlavatý	Visualization of graph algorithms	Assoc. Prof. RNDr. Š. Peško, PhD.
5.	P. Vasilovský	Grouping genetic algorithm for the capacitated p-median problem	Prof. Ing. Ľ. Jánošíková, PhD.
6.	D. Holáš	The license server for external application	Ing. M. Lekýr, PhD.
7.	P. Papp	Chemical Reaction Optimisation (CRO) algorithm for the travelling salesman problem (TSP)	Assoc. Prof. Ing. M. Kohání, PhD.
8.	M. Gardlo	Bus Stop Minimization on a Bus Station	Assoc. Prof. RNDr. S. Palúch, PhD.
9.	P. Duvač	An efficient approximation algorithm for the size-invariant generalized assignment problem	Prof. Ing. Ľ. Jánošíková, PhD.
10.	M. Hrabovský	Artificial intelligence for scouting in strategic game Star craft: Brood war	Ing. P. Tarábek, PhD.
11.	J. Muráň	Implementation of motion detection method using GPU	Ing. P. Tarábek, PhD.
12.	P. Sedláček	Algorithm for k short sts paths problem.	Assoc. Prof. RNDr. S. Palúch, PhD.
13.	T. Milo	Simulation model of uncontrolled road crossing	Assoc. Prof. Ing. P. Márton, PhD.
14.	M. Balko	Analysis, evaluation and creative application of information of motivation and motivating human potential in the selected company	RNDr. R. Blaško, PhD.
15.	P. Ries	Open Source software for 3D modelling	Mgr. M. Kaukič, PhD.
17.	J. Blahovec	Tool for teaching gradient methods to solve non-linear problems	Assoc.Prof.Ing. M. Kohání, PhD.
18.	S. Jurčíková	.NET Component of Hotel Reservation System	Ing. M. Lekýr, PhD.
19.	J. Hrebeňár	Wifi networks monitoring with Raspberry Pi	Mgr. M. Kaukič, PhD.
20.	D. Klučiar	Electronic enquiry system	Ing. T. Majer, PhD.

Master thesis

No.	Student	Theme	Supervisor
1.	P. Matejko	Support for simulation model of emergency medical service	Ing. P. Jankovič, PhD.
2.	R. Kardoš	Interactive graph editor for IN.PRO tool	Assoc. Prof. Ing. M. Kohání, PhD.
3.	Š. Mrázik	Optimisation of vehicles routing for medical sampling	Assoc. Prof. RNDr. Š. Peško, PhD.
4.	T. Šálek	Information System for managing projects with configurable amount of attributes and possibility to changing these attributes using REST service.	Ing. P. Vaško
5.	P. Vrtiak	Design and Implementation of the Online Graphic Editor	RNDr. A. Kozubík, PhD.
6.	M. Noga	The Web Application for Generating Tests	RNDr. A. Kozubík, PhD.
7.	K. Vrábľová	Design of model of transport network	Ing. T. Majer, PhD.
8.	J. Kompiš	Open Source Conference Content management system	RNDr. R. Blaško, PhD.
9.	P. Šino	Beamer Module to create presentations in TeXonWeb	RNDr. R. Blaško, PhD.
10.	F. Kadáš	Advanced Compare Tool for XML files	Ing. B. Beňo, PhD.
11.	J. Kalina	OD matrix elements estimation using entropy models	Ing. T. Majer, PhD.
12.	Ľ. Kardoš	Module for displaying results of the optimization on OSM maps in IN.PRO tool	Assoc. Prof.Ing. M. Kohání, PhD.
13.	M. Hvolka	Post-simulation viewer of simulation models for internet browsers.	Assoc. Prof. Ing. N. Adamko, PhD.

5.3 Department of Informatics

Head of Department:
Prof. Ing. Vitaly Levashenko, PhD.
Tel.:+421-41-513 41 50
Fax: +421-41-513 40 55
e-mail: vitally.levashenko@fri.uniza.sk

Administrative:
Anna Ilovská
Tel.: +421-41-513 41 51
e-mail: anna.ilovska@fri.uniza.sk

Department members:

Prof. Ing. Karol Matiaško, PhD.
Prof. Ing. Vitaly Levashenko, PhD.
Prof. Ing. Elena Zaitseva, PhD.
Assoc. Prof. Ing. Michal Zábovský, PhD.
Assoc. Prof. Ing. Penka Martincová PhD.
RNDr. Peter Varša, PhD.
Ing. Jozef Kostolný, PhD.
Ing. Miroslav Kvaššay, PhD.
Ing. Monika Václavková, PhD.
Ing. Michal Kvet, PhD.
Ing. Ján Boháčik, PhD.
Ing. Michal Varga, PhD.
Ing. Marek Kvet, PhD.

Doctoral full-time students:

Ing. Marián Švalec	- Ontology for Data Integration
Ing. Jan Rabčan	- Analysis of Reliability and Risk

Doctoral part-time students:

Ing. Michal Joštiak	- Data Integration through Ontology
Ing. Monika Vajsová	- Effective Processing of Database Inquiries
Ing. Vladimír Smataník	- Searching and Indexing in Text Oriented Databases
Ing. Juraj Branický	- Parallel Algorithm for Stochastic Optimization
Ing. Vladimír Hanušniak	- Analytic Processing of Widespread Data Sets
Ing. Igor Mäsiar	- Analytic Processing of Expensing Medical Data
Ing. Eduard Vesel	- Dynamic Distribution of Loading in Distributed Systems

Laboratories:

- Laboratory of teaching of programming, databases, operating systems, e-learning

Scientific orientation of the Assoc. Professors at the Department

Assoc. Prof. Ing. Penka Martincová , PhD.

Research interests belong to the area of grid computing, grid infrastructure, scheduling in distributed systems and in a grid, grid resource management, parallel programming models. Principles of operating systems.

Assoc. Prof. Ing. Michal Zábovský , PhD.

Database systems and distributed databases, knowledge discovery in database systems, information systems development. R&D in intelligent systems, knowledge discovery and health informatics (translational medicine).

Bachelor thesis

No.	Student	Theme	Supervisor
1.	T. Poštek	Apricis – text game for web browsers	Assoc. Prof. Ing. K. Grondžák, PhD.
2.	M. Novysedlák	Graph Editor as Application	Ing. M. Kvaššay, PhD.
3.	M. Dzúrik	Taxi service reservation system	Assoc. Prof. Ing. K. Grondžák, PhD.
4.	M. Čuka	Information management system for football club	Assoc. Prof. Ing. K.Grondžák, PhD.
5.	B. Kečkéšová	Monitoring system of energy consumption	RNDr. P. Varša, PhD.
6.	E. Paršo	Human error analysis	Ing. Ján Boháčik, PhD.
7.	T. Vahančík	Resources reservation system	Assoc. Prof. Ing. K. Grondžák, PhD.
8.	M. Belvončík	System for analysis of application log files	Ing. J. Kostolný, PhD.
9.	F. Schwarz	Simulation entities' attributes presentation system in the simulation model of pedestrian movement	Prof. Ing. K. Matiaško, PhD.
10.	P. Žiak	Stock information system	Prof. Ing. E. Zaitseva, PhD.
11.	S. Bavala	Conversion tool for formulas in text documents	Assoc.Prof. Ing. K. Grondžák, PhD.
12.	M. Zaymus	Management tool for citation sources and references	Mgr. M. Fabuš
13.	I. Chodelka	Management system for the volleyball tournament	Ing. M. Varga, PhD.
14.	B. Handáková	Organization reminder system	RNDr. P. Varša, PhD.
15.	J. Šarmír	Android application to track position of mobile device	Ing. J. Kostolný, PhD.

No.	Student	Theme	Supervisor
16.	M. Fábry	Experimental performance comparison of the Oracle and PostgreSQL database systems	Ing. J. Kostolný, PhD.
17.	M. Pollák	Implementation of a Decision Support Tool using the Android System	Ing. J. Kostolný, PhD.
18.	D. Tichý	Employee management system	Assoc. Prof.. Ing. K. Grondžák, PhD.
19.	A. Šišila	Reliability analysis of k-to-l-out-of-n systems based on binary decision diagrams	Ing. M. Varga, PhD.
20.	M. Valjašek	Experimental performance comparison of the Oracle and PostgreSQL database systems	Ing. M. Kvet, PhD.
21.	K. Chudjak	Implementation of a Decision Support Tool Using the Android System	Ing. Ján Boháčik, PhD.
22.	M. Valek	Employee management system	Ing. J. Kostolný, PhD.
23.	L. Čajka	Reliability analysis of k-to-l-out-of-n systems based on binary decision diagrams	Ing. M. Kvaššay, PhD.
24.	O. Ignác	Restaurant system for multiple services	Ing. M. Kvet, PhD.
25.	O. Jorda	Applications for support logistics transport agent.	Ing. M.Václavková,PhD.
26.	T. Kriš	Java application for education support for the first grade of elementary school	RNDr. P. Varša, PhD.
27.	J. Kubala	A tool to monitor the behaviour of visitors on the website	Ing. J. Kuba
28.	M. Minčev	Application for order management and patient Data ambulance.	Ing. M. Václavková, PhD.
29.	P. Kozák	System for automatic e-mails administration	Ing. M. Kvaššay PhD.
30.	B. Kaprál	Scroll cursor for DBS Oracle	Ing. M. Kvet, PhD.
31.	L.Fedoriková	Computation of intersection of convex 3-dimensional objects	Ing., M. Kvaššay PhD.
32.	J. Tropp	Building Information system	Prof. Ing. K. Matiaško, PhD.
33.	S.Tomancová	Simulation of Decision-Making with a Nearest Neighbour Method in a Web Page	Ing. Ján Boháčik, PhD.
34.	L. Fidesová	Experimental performance comparison of the Oracle and MySQL database systems	Ing. M. Kvet, PhD.
35.	D. Klubert	Implementation of web application for data collection support	Prof. Ing. V. Levashenko,PhD.
36.	J. Krcho	Management tool setups used in Safety Management	Ing. M. Václavková, PhD.

Master thesis

No.	Student	Theme	Supervisor
1.	M. Boháč	Spatial databases	Prof. Ing. K. Matiaško, PhD.
2.	J. Rabčan	The application for the evaluation of the questionnaires using data mining	Ing. J. Kostolný, PhD.
3.	P. Ballay	User Plug-in Administration in ERP System	Ing. J. Boháčik, PhD.
4.	Š. Mikolajčík	System for management Medical records	Ing. M. Kvet, PhD.
5.	V. Dušenka	Medical information system - Patient monitoring	Ing. M. Kvet, PhD.
6.	M. Hrín	Development of software maintenance application for creation installation packages, Scheidt and Bachmann – department of Parking and leisure centre systems	Ing. M. Koprda
7.	B. Janošík	Intelligent educational portal – educational games module	Ing. J. Kostolný, PhD.
8.	T. Papp	Development of software application for business trip management	Ing. M. Koprda
9.	J. Lúdik	Information system for transport company	Ing. M. Kvet, PhD.
10.	M. Boškaj	Augmented Reality Applications	Assoc. Prof. Ing. M. Zábovský, PhD.
11.	M. Štefáková	Application for creating administrative documents	Ing. V. Kocián
12.	M. Polakovič	Data import module for server management system	Assoc.Prof. Ing. K. Grondžák, PhD.
13.	M. Petrák	Reliability analysis of noncoherent systems based on prime implicates and methods of logical differential calculus	Ing. M. Kvaššay, PhD.

5.4 Department of Macro and Microeconomics

Head of Department:
Assoc. Prof. Ing. Mária Ďurišová , PhD.
Tel.:+421-41-513 44 00
Fax:+421-41-513 40 55
e-mail: maria.durisova@fri.uniza.sk

Administrative:
Eva Maťková
Tel.:+421-41-513 44 01
e-mail: eva.matkova@fri.uniza.sk

Department members:

Assoc. Prof. Ing. Alžbeta Kucharčíková, PhD.
Assoc. Prof. Ing. Anna Jacková, PhD.
Ing. Beata Holková, PhD.
Ing. Emese Tokarčíková, PhD.
Ing. Lukáš Falát, PhD.
Ing. Lucia Pančíková, PhD.
Ing. Zuzana Staníková, PhD.
Ing. Zuzana Kozubíková, PhD.
Ing. Katarína Zábovská, PhD.

Doctoral full-time students:

Ing. Eva Malichová - Managerial Decision-Making of Investment Decision in Enterprise
Ing. Tatiana Potkanová - Systems Design of Value Management in Enterprise

Scientific orientation of the Assoc. Professors at the Department

Assoc. Prof. Ing. Mária Ďurišová, PhD.

Enterprise theory, Management theory of transformation process in enterprise leading to application research of efficiency measuring in enterprise, as well to influence of management to its achievement in enterprise conditions.

Assoc. Prof. Ing. Alžbeta Kucharčíková, PhD.

Establishment and improvement of human capital as a one from the factors of the economic growth. Determination of evaluation possibilities in efficiency of investments to the human capital realized about all in the form of company education.

Assoc. Prof. Ing. Anna Jacková, PhD.

The main activity is the issue of accounting and economic analysis from the finance and management point of view. Financial stability and the optimization of the financial structure of the enterprise are the most important tasks of corporate financial management. It is because the volume and structure of used capital affect the opportunities of enterprise's dynamic expansion, growth of the turn-out, but mainly the value of capital cost's and the amount of trading income.

Bachelor thesis

No.	Student	Theme	Supervisor
1.	F. Vendrinský	Combating tax evasion in the EU and SR	Ing. B. Holková, PhD.
2.	F. Špontak	Design and Implementation of a Website for the Department of Macro and Microeconomics.	Ing. L. Falát, PhD.
3.	P. Chovanec	Employment opportunities for graduates of secondary schools and universities in the labour market in the district Spišská Nová Ves	Assoc. Prof. Ing. A. Kucharčíková, PhD.
4.	S. Bogačíková	Improving the employment of persons with disabilities in the district Poprad	Assoc. Prof. Ing. A. Kucharčíková, PhD.
5.	A. Buková	Value based thinking in Project Management	Ing. T. Potkanová
6.	M. Trepáň	Evaluation of the financial situation of selected enterprise	Ing. E. Tokarčíková, PhD.
7.	T. Frniak	Improving the employment of older people of working age in the district Liptovský Mikuláš	Assoc. Prof. Ing. A. Kucharčíková, PhD.
8.	T. Žáčik	Financial and economic analysis of the business entity	Ing. Z. Kozubíková, PhD.
9.	B. Čerňancová	The effects of the current tax policy for business entities in the Slovak Republic	Ing. B. Holková, PhD.
10.	M.. Straka	Comparison of pension schemes in selected EU countries	Ing. E. Tokarčíková, PhD.
11.	Z. Štefaníková	Possibilities for increasing the the value of human capital in the chosen company	Assoc. Prof. Ing. A. Kucharčíková, PhD.
12.	J. Cibulková	The impact of potential elementary production factors on the efficiency of the production process of an enterprise.	Ing. B. Holková, PhD.
13.	M. Hudák	Possibilities for reducing unemployment in the district Bardejov	Assoc. Prof. Ing. A. Kucharčíková, PhD.
14.	S. Švorcová	Financial and economic analysis of the company.	Ing. Z. Kozubíková, PhD.
15.	Š. Macháč	Supplying in the enterprise	Assoc. Prof. Ing. M. Ďurišová, PhD.
16.	M. Mičiaková	Analysis of financial statements of company through financial analysis indicators	Assoc. Prof. Ing. A. Jacková, PhD.
17.	M.. Trepáň	Employee fluctuation in selected sector	Ing. L. Pančíková, PhD.
18.	B. Balamutová	Development of wage in selected business sectors in Slovakia	Ing. Z. Staníková, PhD.

Master thesis

No.	Student	Theme	Supervisor
1.	M. Vozárik	Software application for evaluation of the enterprise's financial situation	Assoc. Prof. Ing. M. Ďurišová, PhD.
2.	R. Babišová	Approaches to raise the efficiency of human capital in the chosen company	Assoc. Prof. Ing. A. Kucharčíková, PhD.
3.	D. Mikušková	Optimization of financial structure of company	Assoc. Prof. Ing. A. Jacková, PhD.
4.	Z. Kokavcová	Value tools management in internal departments of specific company	Assoc.Prof. Ing. M. Ďurišová, PhD.
5.	R. Pračková	Optimization of capital structure of company	Assoc.Prof. Ing. A. Jacková, PhD.
6.	M. Dorniaková	Modern methods for assessing business performance	Assoc. Prof. Ing. M. Ďurišová, PhD.
7.	P. Brňák	Application for migration of personal and payroll data	Ing. J. Berthoty
8.	S. Kyselicová	Identification and design of key performance indicators in the selected company	Ing. E. Tokarčíková, PhD.
9.	G. Šramková	The remuneration of employees and its impact on labour productivity in the company	Assoc. Prof. Ing. M. Ďurišová, PhD.
10.	R. Novosadová	Selected flexible forms of employment as a means of employment influencing	Ing. Z. Staníková, PhD.
11.	J. Čavojská	Development forecast of the value added tax yield following legislative changes 2015.	Ing. B. Holková, PhD.
12.	A. Sládková	Software application for evaluation of economic effectiveness of capital project	Assoc. Prof. Ing. M. Ďurišová, PhD.
13.	K. Bačinská	Possibilities of increasing the efficiency of human capital in the enterprise	Assoc. Prof. Ing. A. Kucharčíková, PhD.
14.	E. Muráňová	Design of creating financial reports in a selected enterprise	Ing. E. Tokarčíková, PhD.
15.	M. Ježíková	Design project implementation of restaurant information system in the selected organization	Assoc.Prof. Ing. A. Kucharčíková, PhD.

5.5 Department of Technical Cybernetics

Head of department:
Assoc. Prof. Ing. Peter Ševčík, PhD.
Tel.: +421-41-513 43 50
Fax: +421-41-565 52 80
e-mail: peter.sevcik@fri.uniza.sk

Administrative:
Mgr. Viera Černeková
Tel.: +421- 41-513 43 51
e-mail: viera.cernekova@fri.uniza.sk

Department members:

Prof. Ing. Juraj Miček, PhD.
Assoc. Prof. Ing. Ján Kapitulík, PhD.
Assoc. Prof. Ing. Ondrej Karpiš, PhD.
Ing. Matúš Jurečka, PhD.
Ing. Jana Milanová, PhD.
Ing. Adam Jaroš, PhD.
Ing Lukaš Čechovič, PhD.
Ing. Jozef Juríček, PhD.
Ing. Michal Hodoň, PhD.
Ing. Martin Húdik, PhD.

Researcher:
Ivana Hodasová

PhD Students:

Ing. Michal Kochláň	- Event's Driven Dynamic Systems
Ing. Veronika Olešnaníková	- Wireless Sensory Networks – Communication Subsystem
Ing. Michal Chovanec	- Design of Methods for Collaborate Information Processing in WSN Networks
Ing. Róbert Žalman	- Analysis and Synthesis of Acoustic Signals in the Area of Intelligent Transport Systems with Application Use in Wireless Sensory Network
Ing. Peter Šarafín	- Shaping Control Signals

Equipment

Teaching and Research Laboratories:

- Laboratory of Digital Signal Processing
- Laboratory of Electronics
- Laboratory of Design of the Customers Integrated Circuits (XILINX)
- Laboratory of Digital Computer
- Laboratory of Automatic Control

- Laboratory of HPC and Grid computing
- Laboratory of Embedded systems

Special Measuring Instruments and Computers:

- Models SISO (Single input and single output).
- Models MIMO (Multiple input, multiple output- 2 input and output)
  - The model can by use as a MIMO plant or SISO plant first to sixth-order. The gain of the plants (step response) can be continuously or by step change (0.1, 1, 2, 5).

There is also possibility to change magnitude of disturbance and step switch of output disturbance.

- Models SISO with non-linear gain, transport delay and no minimal phase.
  - 8x workstation on the base of the PC, A/D and D/A converters, starter kit TMS 320x54, evolution kit MSP 430xxx, 8x evolution development kit ATMEL AVR
  - 10x evolution kit ARM7TDI
  - 10x evolution kit STM32F2
  - Programming board FPGA SPARTAN 3
  - ML 403 VIRTEX-4 FX Evaluation Platform
  - 7x Measurement System (Digital Oscilloscope, Logical Analyst, Waveform Generator)
  - 3x Oscilloscope Tektronix TPS2024B
  - 3x Oscilloscope Tektronix AVG3021B
  - Spectral analyser Rhode&Schwarz FSH8 (9kHz – 8GHz)
  - Circuit board plotter for in-house rapid PCB prototyping

Bachelor thesis

No.	Student	Theme	Supervisor
1.	Ľ. Fukas	Communication module for Yrobot platform	Ing. P. Šarafín
2.	R. Ďurec	Maze for Aeris system.	Ing. L. Čechovič, PhD.
3.	J. Melek	Solar Team Slovakia: Electronic Control Unit Display	Ing. M. Kochláň
4.	L. Malatinský	Smart wireless doorbell	Ing. S. Žák
5.	J. Bútora	Binary clock with Bluetooth interface.	Ing. M. Hodoň, PhD.
6.	D. Mašlonka	System dedicated to measurements of light intenity of oncoming vehicles.	Ing. M. Hodoň, PhD.
7.	M. Littva	Autoimmunization of load tests for web applications	Ing. V. Olešnaníková
8.	J. Cisárik	Water level measurement system	Prof. Ing. J. Miček, PhD.
9.	A. Bednár	Analysis of the light spectrum with the use of RGB sensor.	Ing. R. Žalman

No.	Student	Theme	Supervisor
10.	J. Bartkovský	Squares - turn-based multiplayer game for android	Ing. M. Húdik, PhD.
11.	M. Badura	Solar Team Slovakia: Core Operating System for Electronic Control Unit - Access to Peripherals	Ing. M. Kochláň
12.	L. Seyfrid	Temperature Chamber	Ing. M. Jančuš
13.	Š. Sliacky	Mirroring of Yrobot movements.	Ing. R. Žalman
14.	B. Chilý	Control of display unit	Prof. Ing. J. Miček, PhD.
15.	J. Magdolen	Short range voice communicator	Ing. S. Žák
16.	E. Poliak	Personal computer controlled acoustic signal genrator	Prof. Ing. J. Miček, PhD.
17.	L. Formanek	Remote control for Yrobot platform	Ing. P. Šarafín
18.	Š. Hládek	Solar Team Slovakia: Audio-visual Signalling Function of Solar Car for Electronic Control Unit	Ing. M. Kochláň
19.	M. Moravčík	Solar Team Slovakia: Autopilot Function and Solar Car Speed Control	Ing. M. Kochláň
20.	R. Gross	Android Bluetooth oscilloscope	Assoc. Prof. Ing. O. Karpiš, PhD.
21.	M. Chochul	Optical communication system for robot in project Aeris	Ing. L. Čechovič, PhD.
22.	J. Haluška	Tool for measuring parameters of rechargeable battery	Ing. S. Žák
23.	E. Urban	Status visualization and Yrobot motion control via Wi-Fi interface	Ing. P. Šarafín
24.	J. Moravčík	Solar Team Slovakia: Temperature Measurement Function for Electronic Control Unit	Ing. M. Kochláň
25.	Ľ. Štec	Solar Team Slovakia: Temperature Measurement Unit for Solar Car	Ing. M. Kochláň
26.	P. Rendek	Voice control of Y-robot using Smartphone	Ing. M. Revák
27.	M. Slodičák	System for quality of traffic infrastructure measurements.	Ing. M. Hodoň, PhD.
28.	M. Humaj	An extension module for the robot George system.	Ing. M. Hodoň, PhD.
29.	J. Gáfrik	Solar Team Slovakia: Switch Controller for Audio-visual Signalling of Solar Car	Ing. M. Kochláň

Master thesis

No.	Student	Theme	Supervisor
1.	M. Špánik	Sensor system for the control of robotic arm movement.	Ing. M. Hodoň, PhD.
2.	Ľ. Voška	Railroad model controlling - modules for signal lights and switches	Assoc. Prof. Ing. O. Karpiš, PhD.
3.	O. Lobotka	Railroad model controlling - central control unit	Assoc. Prof. Ing. O. Karpiš, PhD.
4.	P. Turčan	Audiometric pure tone	Assoc.Prof. Ing. J. Kapitulík, PhD.
5.	E. Drgáň	Information system for processing and storing information obtained from genetic analysis	Assoc. Prof. Ing. P. Ševčík, PhD.
6.	A. Chromjak	Speed control of PMSM	Prof. Ing. J. Miček, PhD.
7.	M. Olajec	Data collecting embedded system for locomotives	Ing. P. Stopka
8.	M. Špaček	The analysis of dynamic systems features	Assoc. Prof. Ing. J. Kapitulík, PhD.
9.	J. Fekeč	System for wireless battery charging	Ing. M. Húdik, PhD.
10.	A. Kucharík	Client/Server Yrobot extension board.	Ing. M. Hodoň, PhD.
11.	T. Lovišek	Smooth motion of an autonomous robot with obstacles detection.	Ing. M. Hodoň, PhD.
12.	T. Grochal	The expansion module for Yrobot platform	Assoc. Prof. Ing. P. Ševčík, PhD.
13.	J. Rumančík	Vision Based Parking Availability Monitoring	Ing. M. Jurečka, PhD.
14-	M. Vorčák	Event-driving programming on the basis of state machines	Assoc. Prof. Ing. J. Kapitulík, PhD.
15.	M. Kordiak	Development of the applications using control system CX9020	Assoc. Prof. Ing. J. Kapitulík, PhD.
16.	J. Kizek	FPGA implementation of arcade game TRON	Assoc. Prof. Ing. P. Ševčík, PhD.
17.	M. Cabuk	LED table lamp	Assoc. Prof. Ing. J. Kapitulík, PhD.
18.	M. Šamaj	Wireless sensor network - collection and transmission module	Prof. Ing. J. Miček, PhD.
19.	M. Stenchlák	Autonomous navigation and orientation of the robot in a building	Ing. M. Húdik, PhD.
20.	L. Čepec	Sensor data collection system	Assoc. Prof. Ing. P. Ševčík, PhD.

No.	Student	Theme	Supervisor
21.	P. Rapáč	Wireless imaging system	Prof. Ing. J. Miček, PhD.
22.	S. Vojtas	Analytical performance modelling of dominant parallel computers	Prof. Ing. I. Hanuliak, PhD.
23.	J. Franko	Design and implementation of virtual server infrastructure for business use	Ing. M. Húdik, PhD.
24.	M. Madliak	Bidirectional pump of electrical energy	Prof. Ing. J. Miček, PhD.
25.	M. Bednár	Particle Filters in Robotics	Ing. J. Milanová, PhD.
26.	J. Jablonský	Dron control system	Ing. M. Jurečka, PhD.

Other activities of the Department

- Department of Technical Cybernetics has signed the European Road Safety Charter and thereby commits to share the responsibility for road safety in Europe.
- Co-organizer part of the IEEE conference FedCSIS 2015 called WSN 2015. The FedCSIS Events provide a platform for bringing together researchers, practitioners, and academia to present and discuss ideas, challenges and potential solutions on established or emerging topics related to research and practice in computer science and information systems.

5.6 Department of Information Networks

Head of Department:
Assoc. Prof. Ing. Pavel Segeč, PhD.
Tel.: +421-41-513 43 00
Fax: +421-41-513 43 12
e-mail: pavel.segec@fri.uniza.sk

Administrative Department:
Mária Liskayová
Tel.: +421-41-513 43 01
e-mail: maria.liskayova@fri.uniza.sk

Department members:

Prof. Ing. Martin Klimo, PhD.
Prof. Ing. Matilda Drozdová, PhD.
Prof. Ing. Tatiana Kováčiková, PhD.
Mgr. Jana Uramová, PhD.
Ing. Ľudovít Mikuš, PhD.
Mgr. Juraj Smieško, PhD.
Ing. Ondrej Škvarek, PhD.
Ing. Petr. Ivaniga, PhD.

Technical Staff:
Vladimír Frnčo

Doctoral full-time students:

Ing. Marek Moravčík	- Migration Services for Cloud Computing
Ing. Jakub Hrabovský	- Safety in High Speed Networks and Detection Problems of Attacks in Real Time

Teaching and Research Laboratories:

- Laboratory of Communication Technology
- Laboratory of advanced networking
- Laboratory of Applications Development
- Cisco Networking Academy Laboratory
- B356 ECDL lab

Bachelor thesis

No.	Student	Theme	Supervisor
1.	M. Kučera	Available software cloud data storage for mobile devices	Ing. P. Liga, PhD.
2.	M. Velič	Error performance in Optical transport Networks	Ing. P. Liga, PhD.
3.	S. Kureková	ICMPv6 threats and attacks	Assoc. Prof. Ing. P. Segeč, PhD.
4.	R. Solár	Network security tools focusing on the intrusion detection	Assoc. Prof. Ing. P. Segeč, PhD.
5.	I. Stehlík	Amplification DDOS attacks	Assoc. Prof. Ing. P. Segeč, PhD.
6.	J. Šumský	Using Raspberry Pi As a Thin Client	Ing. P. Palúch, PhD.
7.	R. Ustinov	BigBlueButton - the collaboration communication and learning system	Assoc. Prof. Ing. P. Segeč, PhD.
8.	D. Vágner	Implementation of Selected Application Network Services on a Linux-based Server	Ing. P. Palúch, PhD.
9.	M. Maruna	Analysis identifying headers in the FPGA circuits .NET	Ing. P. Liga, PhD.
10.	L. Fain	Feature extraction from digit patterns	Prof. Ing. M. Klimo, PhD.
11.	T. Šroba	Student testing in Packet Tracer	Mgr. J. Uramová, PhD.
12.	M. Kozák	TRILL (Transparent Interconnection of Lots of Links)	Ing. J. Papán, PhD.
13.	M. Vachalík	Analysis of fast reroute mechanisms	Ing. J. Papán, PhD.
14.	A. Marečák	WebRTC SIP client.	Assoc. Prof. Ing. P. Segeč, PhD.
15.	P. Tadanajová	Network scanning and network attacks with Scapy tool	Mgr. J. Uramová, PhD.
16.	M. Václavik	Guide for text creating in LaTeX for Windows	Mgr. J. Uramová, PhD.
17.	R. Lonský	Linux as an router entity	Assoc. Prof. Ing. P. Segeč, PhD.
18.	M. Brodec	Packet Tracer and Dynamips/Dynagen as tools for student testing	Mgr. J. Uramová, PhD.
19.	I. Hrnčár	The analysis of onion routing, TOR and their security issues	Assoc. Prof. Ing. P. Segeč, PhD.
20.	S. Benediková	WBT course Hardware Network Security	Ing. P. Liga, PhD.

Master thesis

No.	Student	Theme	Supervisor
1.	A. Krištof	High Volume Distributed Application Protocol Flow Generator -- Data Plane	Ing. P. Palúch, PhD.
2.	L. Koribský	Methods for multi-class classification	Assoc. Prof. Mgr. O. Šuch, PhD.
3.	M. Zipser	Asset Protection Driven Security Architecture for 1-4 layers of OSI model	Prof. Ing. M. Drozdová, PhD.
4.	E. Sýkorová	The application of the architectural framework RM ODP in the network security management	Prof. Ing. M. Drozdová, PhD.
5.	M.Horčičková	Training of DDoS attack recognition system by evolutionary algorithms	Prof. Ing. M. Klimo, PhD.
6.	J. Poláček	Asset Protection Driven Security Architecture for 4-7 layers of OSI model	Prof. Ing. M. Drozdová, PhD.
7.	A. Púchyová	High Volume Distributed Application Protocol Flow Generator -- Control Plane	Ing. P. Palúch, PhD.
8.	R. Cvacho	Intelligent house	Ing. Š. Baďura, PhD.
9.	Ľ. Kaplán	Network data collection via probe implemented in Net FPGA board	Ing. P. Ivaniga, PhD.
10.	M. Kontšek	Implementation of Neighbor Session Restart Mechanisms in Quagga EIGRP	Ing. P. Palúch, PhD.
11.	M. Lednická	The usability of virtualisation techniques for the creation of virtual laboratory on networking technologies	Assoc. Prof. Ing. P. Segeč, PhD.
12.	T. Hvorkový	Implementation of Routing Information Content Filtering in Quagga EIGRP	Ing. P. Palúch, PhD.
13.	J. Pobeha	Issues of collecting and analyzing network traffic	Assoc. Prof. Ing. P. Segeč, PhD.
14.	R. Orješek	Web service “virtual mirror” for preoperational diagnosis in face surgery	Ing. T. Piatrik, PhD.
15.	Z. Holeša	Technology of software-defined networks and the department teaching	Assoc. Prof. Ing. P. Segeč, PhD.
16.	J. Cvenček	Distributed monitoring of network activity	Assoc. Prof. Mgr. O. Šuch, PhD.
17.	L. Maťokár	DDoS attack recognition by neural network	Ing. O. Škvarek, PhD.

5.7 Department of Management Theories

Head of Department:
Assoc. Prof. Ing. Milan Kubina, PhD.
Tel.: +421-41-513 44 50
e-mail: milan.kubina@fri.uniza.sk

Administrative:
Oľga Doricová
Tel.: +421-41-513 44 51
e-mail: olga.doricova@fri.uniza.sk

Department members:

Prof. Ing. Josef Vodák, PhD.
Prof. Ing. Štefan Hittmár, PhD.
Assoc. Prof. Ing. Martina Blašková, PhD.
Assoc. Prof. Ing. Viliam Lendel, PhD.
Assoc. Prof. Mgr. Jakub Soviar, PhD.
Assoc. Prof. Ing. Radoslav Jankal, PhD.
Ing. Michal Varmus, PhD.
Ing. Juraj Dubovec, PhD.
Ing. Jana Makyšová, PhD.

Doctoral full-time students:

Ing. Zuzana Škutchanová	- Products Innovation and Processes in Service Sector
Ing. Gabriel Koman	- Use of IS/KT in Company's Sphere to Decision-Making Support
Ing. Jana Kundríková	- Cooperation Organization Structures and their Strategic Management
Ing. Eva Siantová	- Measuring of Innovation Efficiency in Enterprise
Ing. Martin Latka	- Creating and Management of Innovation Processes in Company
Ing. Martin Holubčík	- Strategic Control Influence of Enterprises Groups to Formation of Required Synergic Effects
Ing. Krisína Tršková	- Managerial Decision-Making in Motivation
Ing. Diana Zraková	- Influence of Communication Systems in Company to Managerial Decision-Making and its Process Control

Doctoral part-time students:

Ing. Jozef Šarlay	- MBO Method Using in Strategic Management
Ing. Stanislava Ďurmeková	- Creating and Innovation CRM in Company
Ing. Katarína Púčková	- Application of Knowledge Management Elements in Strategic Management
Ing. Lenka Tarábková	- Influence of investments to human capital (in educational form) focused to efficiency, profitability and competitiveness of company

Bachelor thesis

No.	Student	Theme	Supervisor
1.	A. Droppa	Effective management of a patient in neurological clinic of the hospital in Brezno	Assoc. Prof. Ing. M. Kubina, PhD.
2.	S. Tinka	Proposal of marketing communication	Assoc. Prof. Mgr. J. Soviar, PhD.
3.	V. Targošová	Improving motivation in relation to ethical outplacement of employees	Assoc. Prof. Ing. M. Blašková, PhD.
4.	A. Valchárová	Corporate social responsibility in conditions of selected firm	Assoc. Prof. Ing. R. Jankal, PhD.
5.	T. Kopták	Online Marketing Communications for a Company	Ing. M. Varmus, PhD.
6.	D. Lonc	Process of obtaining customers of economic programs improvement	Ing. V. Kocián
7.	V. Brezáni	Proposal of value investing strategy on capital markets for individual investors.	Prof. Ing. J. Vodák, PhD.
8.	M. Boteková	Use of ICT within the project management in the selected company.	Assoc. Prof. Ing. M. Kubina, PhD.
9.	L. Škripková	Social networks as a tool for building PR of the company Žilinská teplárenská, a.s.	Ing. J. Kundríková
10.	M. Franko	Corporate social responsibility in conditions of selected firm	Assoc. Prof. Ing. R. Jankal, PhD.
11.	J. Samec	Customer segmentation for Grid Laser Arena Žilina	Ing. G. Koman
12.	P. Valíková	Proposal for the organization and the organizational structure of the project team Solar Team Slovakia.	Prof. Ing. J. Vodák, PhD.
13.	Ľ. Poliačková	Market research implemented for company KROS, Joint venture.	Assoc. Prof. Ing. V. Lendel, PhD.
14.	M. Kučerová	Proposal of Marketing Communication for a Coffeehouse	Ing. M. Varmus, PhD.
15.	J. Chano	Marketing communications for company Blueweb, Ltd.	Assoc. Prof. Ing. V. Lendel, PhD.
16.	D. Tumová	Proposal of motivation program for chosen company	Assoc. Prof. Ing. M. Blašková, PhD.
17.	A.Chromčáková	Corporate social responsibility in conditions of selected firm	Assoc. Prof. Ing. R. Jankal, PhD.
18.	L. Boroň	Proposal of Communication Mix for a Company	Ing. M. Varmus, PhD.

No.	Student	Theme	Supervisor
19.	R. Čerňanská	Creating a marketing strategy for selected customer segment of travel agency.	Prof. Ing. J. Vodák, PhD.
20.	J. Vilhan	Marketing communications for company Hriňovské strojárne, a. s.	Assoc. Prof. Ing. V. Lendel, PhD.
21.	J. Bobček	Proposal of Communication Mix for a Company	Ing. M. Varmus, PhD.
22.	M. Müller	Characteristics of calls for projects from the project management point of view	Ing. J. Makyšová, PhD.
23.	T. Bavala	Design and implementation of a website for the selected company.	Assoc. Prof. Ing. M. Kubina, PhD.
24.	Z. Ševčíková	Proposal of Integrated Marketing Communication for a Company	Ing. M. Varmus, PhD.
25.	V. Holásková	Competitors' analysis	Assoc. Prof. Mgr. J. Soviar, PhD.
26.	M. Hazala	Proposal of marketing communication for ŠK LR Crystal Lednické Rovne	Ing. J. Kundríková
27.	A. Hucík	Design and configuration of WiFi network in the hotel Arman	Assoc. Prof. Ing. M. Kubina, PhD.
28.	E. Krajčiová	Improvement of motivation program for chosen production company	Assoc. Prof. Ing. M. Blašková, PhD.
29.	V. Iskrová	System of motivating and appraising work performance at chosen company	Assoc. Prof. Ing. M. Blašková, PhD.
30.	M. Loos	Proposal business strategy for the on-line agency	Prof. Ing. J. Vodák, PhD.
31.	M. Micháliková	Customers' requirements monitoring	Assoc. Prof. Mgr. J. Soviar, PhD.
32.	E. Hoštáková	Cafes' online marketing	Assoc. Prof. Mgr. J. Soviar, PhD.
33.	M. Vráb	Motivation and Education of Employees in Medium-sized Enterprise	Ing. J. Magdolenová, PhD.
34.	Z. Brablecová	Business process improvement in the chosen company	Ing. E. Siantová
35.	R. Turjak	Coordination of Ordering and Storage System in Service Organization	Ing. J. Dubovec, PhD.
36.	L. Mániková	Proposal of motivation program for chosen company	Assoc. Prof. Ing. M. Blašková, PhD.
37.	M. Hrubošová	Application of selected processes of human resources management in managerial practice	Ing. K. Tršková

Master thesis

No.	Student	Theme	Supervisor
1.	T. Lališová	Employer Branding in conditions of selected firm	Assoc. Prof. Ing. R. Jankal, PhD.
2.	M. Baloghová	The rationalization of selected business processes	Prof. Ing. Š. Hittmár, PhD.
3.	M. Vidlička	Logistics Audit in Selected Company	Ing. J. Dubovec, PhD.
4.	M. Dolnik	Proposal of Strategy for Selected Project of Slovak Tennis Association	Ing. M. Varmus, PhD.
5.	M. Kolesár	Strategy of Online Marketing Communication for an Organization	Ing. M. Varmus, PhD.
6.	Z. Kopasová	Proposing and improving motivation programs in chosen companies	Assoc. Prof. Ing. M. Blašková, PhD.
7.	R. Cecko	Strategy of Internal Marketing Communication in an Organization	Ing. M. Varmus, PhD.
8.	M.Greschnerová	Support for project management in the selected company by using ICT	Assoc. Prof. Ing. M. Kubina, PhD.
9.	M. Matejčeková	Marketing strategies of mineral waters' premium brands	Assoc. Prof. Mgr. J. Soviar, PhD.
10.	S. Kulišová	Motivation and motivating of employees and managers in chosen companies	Assoc. Prof. Ing. M. Blašková, PhD.
11.	N. Svoboda	Usage of Smart technologies for the University of Žilina (Smart Campus)	Assoc. Prof. Ing. M. Kubina, PhD.
12.	P. Paule	Warehouse Draft for Business Organizations	Ing. J. Dubovec, PhD.
13.	M. Uková	Proposal of application Theory of Constraints in the manufacturing plant	Prof. Ing. J. Vodák, PhD.
14.	M. Knapik	Personal marketing for company Scheidt & Bachmann Slovensko, Ltd.	Assoc.Prof. Ing. V. Lendel, PhD.
15.	Z. Cyprichová	Quality management in conditions of selected firm	Assoc. Prof. Ing. R. Jankal, PhD.
16.	R. Králik	Strategy of sport development in town Čadca	Ing. M. Varmus, PhD.
17.	M. Vanya	Value innovations in logistic chain in company PCA Slovakia, s. r. o.	Assoc. Prof. Ing. V. Lendel, PhD.
18.	A. Kováčiková	Motivation and motivating of administrative staff in chosen company	Assoc. Prof. Ing. M. Blašková, PhD.
19.	P. Ferenc	Proposal of Marketing Strategy for an Apartment-hotel	Ing. M. Varmus, PhD.
20.	Z. Ďuriančíková	Marketing communication strategy	Assoc. Prof. Mgr. J. Soviar, PhD.

No.	Student	Theme	Supervisor
21.	A. Dávidík	Support for project management using a certain software applications in the enterprise.	Assoc. Prof. Ing. M. Kubina, PhD.
22.	M. Priekala	Optimization of combustion processes in energy production units of thermal power plant.	Assoc. Prof. Ing. M. Kubina, PhD.
23.	P. Madliaková	The rationalization of selected business processes	Prof. Ing. Š. Hittmár, PhD.
24.	B. Bartošová	Comparison of creation process of motivation program in difference companies	Assoc. Prof. Ing. M. Blašková, PhD.
25.	D. Moravčíková	Organizing of innovative activities in the company Good Request, Ltd.	Assoc. Prof. Ing. V. Lendel, PhD.
26.	M. Čertík	Change management in conditions of selected enterprise	Assoc. Prof. Ing. R. Jankal, PhD.
27.	B. Bubanová	Application design of Theory of Constraints to the corporation Metsä Tissue Slovakia	Prof. Ing. J. Vodák, PhD.
28.	M. Podpleský	Proposal of application Theory of Constraints in the enterprise	Prof. Ing. J. Vodák, PhD.
29.	J. Olejník	Application of Principles of Lean Logistics into the Internal Material Flow	Ing. J. Dubovec, PhD.
30.	A. Madajová	Quality management in conditions of selected firm	Assoc. Prof. Ing. R. Jankal, PhD.
31.	J. Švec	Creating a governance model selected housing community owners	Assoc. Prof. Ing. M. Kubina, PhD.
32.	V. Holešová	Motivation and motivating of employees and managers	Assoc. Prof. Ing. M. Blašková, PhD.
33.	M.Demjanovičová	Proposal of Marketing Strategy for a Company	Ing. M. Varmus, PhD.
34.	R. Glasnák	Options application support for the selected project management company	Assoc. Prof. Ing. M. Kubina, PhD.
35.	M. Prekopová	Application of marketing tools for the selected product	Assoc. Prof. Ing. R. Jankal, PhD.
36.	K. Dubovská	The rationalization of selected business processes	Prof. Ing. Š. Hittmár, PhD.
37.	R. Zraková	Corporate marketing strategy	Assoc. Prof. Mgr. J. Soviar, PhD.

5.8 Department of Software Technologies

Head of Department:
Ing. Viliam Tavač, PhD.
Tel.: + 421-41-513 41 00
e-mail: viliam.tavac@fri.uniza.sk

Administrative:
Mgr. Iveta Belošovičová
Tel.: + 421-41-513 41 01
e-mail: iveta.belosevicova@fri.uniza.sk

Department members:

Assoc. Prof. Ing. Emil Kršák, PhD.
Assoc. Prof. Ing. Katarína Bachratá, PhD.
Mgr. Iveta Jančigová, PhD.
Assoc. Prof. Ing. Ján Janech, PhD.
Ing. Matej Meško, PhD.
Ing. Ján Ružbarský, PhD.
Ing. Patrik Hrkút, PhD.
Ing. Marek Tavač, PhD.
Ing. Štefan Toth, PhD.

Researchers:

Assoc. Prof. Ing. Miroslav Hrnčiar, PhD.
Assoc. Prof. Mgr. Ivan Cimrák, Dr.
RNDr. Hynek Bachratý, PhD.
Ing. Miroslav Gábor, PhD.

Doctoral full-time students:

Mgr. Martin Bušík	- Design and Development of Computational Models for Extensive Computer Experiments with Applications in Biomedicine
Mgr. Kristína Kovalčíková	- Accuracy Rating for Models in Elastic Motion in Fluid Flow
Ing. Martin Slavík	- Modelling of Elastic Objects Motion in Fluid Flow
Mgr. Mariana Ondrušová	- Development, Calibration and Application of Biological Cells Models

Doctoral part-time students:

Ing. Marek Kotus	- Development of Computer Models and Parallel Simulations for better Understanding of Processes in the Micro fluid Equipments

Equipment

Teaching and Research Laboratories:

- Laboratory of Object Technologies
- Laboratory of Control Process Developing

Servers:

- ZEUS Fedora Core, VAII Gentoo, HERMES Gentoo. ATLAS Gentoo
- TITAN MS Windows 2008 Server
- JASON MS Windows 2003 Server
- PERSEUS MS Windows 2003 Server
- POSEIDON MS Windows 2003 Server

Scientific orientation of the Assoc. Professors at the Department

Assoc. Prof. Ing. Emil Kršák, PhD.

Research and development in information-communication systems, intelligent transport systems, information systems for basic and dispatching control of transport, distributed information systems, security of information systems, object-oriented programming, advanced object technology.

Assoc. Prof. Ing. Miroslav Hrnčiar, PhD.

Specific areas of management science. Principal research domains are services, in which is focus to research of Service Quality, Process Management, Project Management and using standardised managerial approaches supported by information and communication technology.

Assoc. Prof. Mgr. Ivan Cimrák, Dr.

Developing of models for elastic objects immersed in fluids. Analysis of developed models with respect to scalability, accuracy, efficiency. Implementation of models into scientific software and running large-scale simulations. Application of results in the design and development of micro-fluidic devices used in biomedicine.

Assoc. Prof. Ing. Ján Janech, PhD.

General research in object oriented programming. Metaprogrammimng and software engineering. Possibilities of using distributed database systems in VANET. Using DSM tools in educational process.

Bachelor thesis

No.	Student	Theme	Supervisor
1.	M. Hlavňa	Password less authentication in internet applications	Ing. M. Mižík
2.	V. Smiešková	Information system for training management	Ing. P. Hrkút, PhD.
3.	M. Mravec	Dynamic template for Wordpress with the possibility of administration	Ing. J. Ružbarský, PhD.
4.	P. Hrmo	Web application for lunch ordering	Ing. M. Meško, PhD.
5.	M. Kumorová	Information system for patient order	Ing. Š. Pavlus

No.	Student	Theme	Supervisor
6.	N. Lisoňová	Value Management - Function Need Analysis	Assoc. Prof. Ing. M. Hrnčiar, PhD.
7.	M. Kováč	Development of a mobile application for creation and sharing of shopping lists	Assoc. Prof. Mgr. I. Cimrák, Dr.
8.	M. Žofaj	2D game development for Android	Ing. M. Meško, PhD.
9.	J. Janušek	Application for obtaining information needed for Faculty students	Ing. M. Gábor, PhD.
10.	A. Horváthová	Quality based Thinking in the Project Management	Assoc. Prof. Ing. M. Hrnčiar, PhD.
11.	T. Gajdošík	Mobile iOS application for cinemas chain	Ing. V. Kubis
12.	R. Čerešňák	Employees' working time and project management system	Ing. Š. Toth, PhD.
13.	M. Sondor	Game development for Android	Ing. M. Gábor, PhD.
14.	P. Šoška	Computer control via mobile application	Ing. Š. Toth, PhD.
15.	L. Kozemčáková	Process of Benchmarking Partnership Establishment in Non-competition Environment	Assoc. Prof. Ing. M. Hrnčiar, PhD.
16.	D. Vrábeľ	TalkAtive - social network	Assoc.Prof. Ing. E. Kršák, PhD.
17.	J. Podhorský	Web application for students testing	Ing. M. Meško, PhD.
18.	M. Mäsiar	Calculation for price offer of mandatory contractual insurance for online .poistenie.sk website	Ing. M. Šimko
19.	J. Blunár	RPG Game	Assoc. Prof. Ing. J. Janech, PhD.
20.	I. Honcová	Running Information System	Ing. J. Ružbarský, PhD.
21.	L. Blaha	Mobile application for food evaluation in canteen of the University of Žilina	Ing. Š. Toth, PhD.
22.	T. Urbánek	Analysis of cell movement in micro fluidic devices	Assoc. Prof. Mgr. I. Cimrák, Dr.
23.	M. Hanačík	Information system for local tournaments for game League of Legends	Ing. J. Ružbarský, PhD.
24.	L. Kabát	Game and application development using MonoGame framework	Ing. Š. Toth, PhD.
25.	M. Buzgo	Generation and reading of visual code	Ing. M. Meško, PhD.
26.	J. Kavecká	Opportunities and Constrains of Using of Replenishment Services	Assoc. Prof. Ing. M. Hrnčiar, PhD.

No.	Student	Theme	Supervisor
27.	D. Grygar	Transport Simulation Game	Assoc. Prof. Ing. J. Janech, PhD.
28.	Ľ. Tomčíková	ICT Project Management Support for SME	Assoc. Prof. Ing. M. Hrnčiar, PhD.
29.	M. Majerčíková	Tool for comparison and synchronization of the database table data	Ing. M. Gubiš
30.	M. Jesenská	Risk Management Approaches in Educational Institutions	Assoc. Prof. Ing. M. Hrnčiar, PhD.

Master thesis

No.	Student	Theme	Supervisor
1.	M. Bros	Architecture of cooperation between web application and social networks	Ing. P. Hrkút, PhD.
2.	J. Paľa	Compiler from JavaScript to Python	Assoc. Prof. Ing. J. Janech, PhD.
3.	V. Rojíček	Obtaining of tax information from unstructured documents	Ing. V. Kocián
4.	M. Vrábel	Graduate-Faculty Interface Management	Assoc. Prof. Ing. M. Hrnčiar, PhD.
5.	Ľ. Pílnik	Comparison of Systems of Person's Evaluation in Praxis and in Educational institutions	Assoc. Prof. Ing. M. Hrnčiar, PhD.
6.	E. Ištoková	Data correction transformation of railway transport network	Ing. V. Tavač, PhD.
7.	P. Drozd	Module for effective creation of data migration schema	Ing. J. Berthoty
8.	V. Jurčišin-Kukľa	Constraint definition language for the UML .FRI CASE tool	Assoc.Prof. Ing. J. Janech, PhD.
9	J. Taračka	Student Profilation in Tertian Education Sector	Assoc.Prof. Ing. M. Hrnčiar, PhD.
10.	M. Ďuračík	Integration of legacy systems into FRI system infrastructure	Ing. P. Hrkút, PhD.
11.	E. Mažgut	System of automated tests using up-to-date software tools	Ing. Peter Kubík

6 International cooperation

6.1 Bilateral agreements and business trips

In 2016, the faculty had active cooperation based on the bilateral agreements with following institutions:

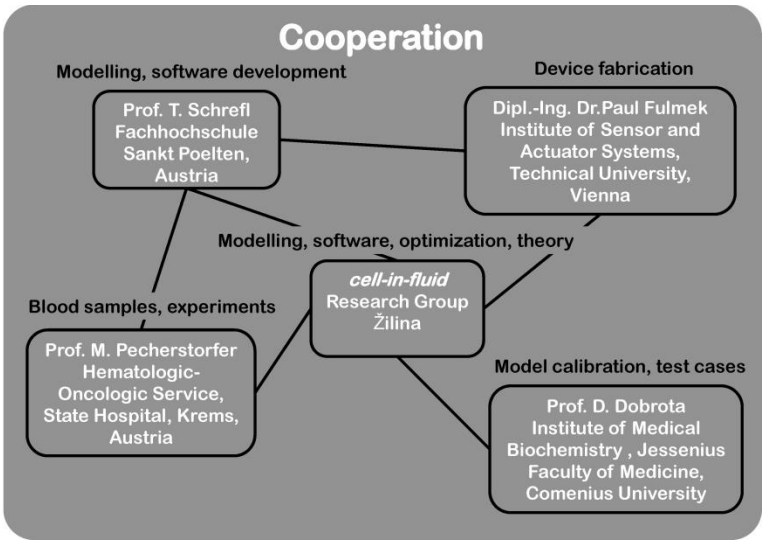
- HfTL Lepzig, Germany
- Universidad Politécnica de Valencia, Spain
- Scheidt & Bachmann, Mönchengladbach, Germany
- Siemens Österreich, Vienna, Austria
- Jyväskylä Polytechnic, School of Information Technology, JAMK, Finnland
- Higher College of Telecommunications and Posts Sofia, Bulgaria
- United Institute of Informatics Problems, National Academy of Sciences of Belarus, Belarus
- National University of Kaohsiung, Taiwan (R.O.C)
- Shamon College of Engineering, Beer Sheva, Israel
- Faculty of Public Administration, Mykolas Romeris University, Vilnius, Lithuania
- National University of Shipbuilding¸ Nikolaev, Ukraine
- Moscow State University of Railway Engineering, Russion Federation
- Faculty of Sciences, University of Pécs, Hungary
- Technische Universität Ilmenau, Germany

In 2016, the faculty members realized about 300 business and research trips, 140 to the Czech Republic. Long-term cooperation in frame of research activities was realized with our partners:

- IBM Research Slovakia
- IBM Life Science Discovery Center, Toronto, Canada
- United Istitute of Information Problems, National Academy of Sciences of Belarus
- Technische Universität Berlin, Germany
- Technische Universität Dresden, Germany
- University of Applied Sciences Dresden, Germany
- Centrum dopravního výskumu, Czech Republic
- Red Hat, Czech Republic
- Davinci, Slovakia
- AZD Praha, Czech Republic
- University of Economics, Praque, Czech Republic
- Cisco Systems, USA
- University of Belgrade, Serbia

- GISIG, Genova, Italy
- JRC Ispra, Italy
- Queen Mary University of London, United Kingdom
- Institute of Computational Physics, University of Stuttgart, Germany
- Institute of Chemical Biology, Imperial College, London, United Kingdom
- ETH Zürich, Switzerland
- Scheidt und Bachman Slovakia
- ETSI Sophia Antipolis, France
- University of Zagreb, Croatia

Cell-in-fluid research group cooperates with several partners from Austria.



6.2 Erasmus+ cooperation

In 2016, about 45 bilateral agreements for Erasmus+ program are valid, with following institutions:

- Faculty of Mathematics and Physics, Charles University, Prague, Czech Republic
- Faculty of Informatics and Management, University of Hradec Králové, Czech Republic
- Faculty of Transport Engineering, University of Pardubice, Czech Republic
- VŠB – Technical University of Ostrava, Czech Republic
- The Institute of Technology and Business in České Budějovice, Czech Republic
- University of Vaasa, Finnland
- University of Jyväskylä, Finnland
- Jyväskyla University of Applied Sciences, Finnland

- Seinäjoki University of Applied Sciences, Finnland
- Molde University College - Specialized University in Logistics, Norway
- University of Porto, Portugal
- Universitat Politecnica de Valencia, Spain
- Universitat de les Illes Balears, Spain
- Télécom Ecole de Management, Sudparis, France
- Télécom Lille, France
- L´université d´Orléans, Ecole polytechnique, France,
- Télécom Lille, France,
- University of Applied Sciences, Aschaffenburg, Germany
- University of Applied Sciences, Leipzig, Germany
- Technische Universität Dresden, Faculty of Transportation and Traffic Science, Germany
- University of Applied Sciences, Dresden, Germany
- Czestochowa University of Technology, Poland,
- West Pomeranian University of Technology, Szczecin, Poland
- Lomza State University of Applied Sciences, Poland
- The State higher school of vocational education in Ciechanów, Poland
- Kielce University of Technology, Faculty of Management and Computer Modeling, Faculty of Electrical Engineering, Automatics and Computer Science, Poland
- Kazimierz Pulaski University of Technology and Humanities in Radom, Poland
- University of Lodz, Poland,
- University of Finance and Management, Warszaw, Poland,
- Transport and Telecommunication Institute, Riga, Latvia
- Mykolas Romeris University, Faculty of Polotics and Management, Faculty of Social Technologies, Vilnius, Lithuania
- University of Debrecen, Faculty of Informatics, Hungary
- Széchenyi István University, Gyor, Hungary
- University of Pécs, Faculty of Sciences, Hungary
- University of Maribor Mariboru, Faculty of Criminal Justice and Security, Slovenia
- Faculty of Organisation and Informatics Varaždin, University of Zagreb, Croatia
- Faculty of Electrical Engineering and Computing, University of Zagreb, Croatia
- Technical University of Sofia, Bulgaria
- High College of Telecommunications and Posts, Sofia, Bulgaria
- University of Niš, Faculty of Electronic Engineering, Serbia
- University of Belgrade, Faculty of Organizational Sciences, Serbia,
- University of Belgrade, Faculty of Transport and Traffic Engineering, Serbia,

- Ss. Cyril and Methodius University, Skopje, FYROM
- Transilvania University of Brasov, Romania
- Dunarea de Jos University of Galati, Romania
- Hellenic Open University, Patras, Greece
- Technological Educational Institute of Larissa, Greece
- Istanbul Kemerburgaz University, Turkey

The faculty hosted fifteen foreign students in frame of the study mobility – from Brazil, Finland, Croatia, Lithuania, Portugal, Norway and Romania. Eleven arrived in frame of Erasmus+ study mobility. Three students arrived in frame of Ibrasil (Erasmus Mundus) project. One studend paid for her study. Two students worked at the faculty in frame of IAESTE internship – from Hong-Kong and India.

Our eighteen students studied at partner institutions in Europe – in Czech Republic, Finland, Croatia and Portugal. Our seven students realized their internship in frame of Erasmus+ program in Netherland, Norway, Germany and Italy. Our two students were in IAESTE internship – in India and Poland.

In frame of teaching mobilities and staff training of Erasmus+ program, sixteen foreign teachers and administrative staff were at the faculty – from Czech Republic, Finland, Greece, Latvia, Poland, Romania, Serbia and Spain. Our teachers realized three teaching mobilities – in Germany and Czech Republic – and two staff training mobilities – in Spain and Croatia.

6.3 Membership of the faculty, departments and their members in the international associations

Faculty members are active in the several international associations. They are members of program committees of international conferences and members of boards of scientific journas.

Members of international associations		
Faculty member	**International association**	**Position**
prof. Ing. Karol Matiaško, PhD.	National Evaluation and Foresigh Agency, Spain	Evaluator
	Czech Society for System Integration	Program committee member
	IEEE	Member
	ACM	Member
prof. Ing. Elena Zaitseva, PhD.	International Association for Pattern recognition (IAPR)	Member
	Technical Committee of European Safety and Reliability Association	Member

Members of international associations		
Faculty member	**International association**	**Position**
prof. Ing. Vitaly Levashenko, PhD.	International Association for Pattern recognition (IAPR)	Member
assoc. prof. Ing. Michal Zábovský, PhD.	Czech Society for System Integration	Member
assoc. prof. Ing. Peter Fabián, CSc.	GISIG – Geographical Information Systems International Group, Janov, Taliansko	Program committee member
assoc. prof. Ing. Norbert Adamko, PhD.	European Simulation Society	Member
assoc. prof. Ing. Peter Márton, PhD.	International Association of Railway Operation Research	Member
prof. Ing. Martin Klimo, PhD.	IEEE	Member
	ACM	Member
	ICTC European Commission	Member
prof. Ing. Tatiana Kováčiková, PhD.	ETSI	Member
	Cost	Member
assoc. prof. Ing. Ján Janech, PhD.	IEEE: Advancing Technology for Humanity	Member
assoc. prof. Ing. Karol Grondžák, PhD.	IEEE	Member
	ACM	Member
assoc. prof. Ing. Martina Blašková, PhD.	International Academic Network HPD CEEUS – Human Potential Development in Central and Eastern EU States	Co-founder, first vice-president, coordinator in Slovakia
Ing. Michal Varmus, PhD.	ESEA – European Sport Economics Association	Member
assoc. prof. Ing. Miroslav Hrnčiar, PhD.	EQAVET – European Quality Assurance in Vocational Education	Member
	Austrian Society for Process Management	Member
	EIPA – European Institute for Public Administration	Member

Members of boards of scientific journals	
Faculty member	**Journal name**
assoc. prof. Ing. Stanislav Palúch, CSc.	Central European Journal of Operations Research – CEJOR
assoc. prof. RNDr. Štefan Peško, PhD.	Transactions on Transport Sciences - International Scientific Journal for Transport Sciences
assoc. prof. Ing. Penka Martincová, PhD.	Journal Information Technologies and Security
prof. Ing. Elena Zaitseva, PhD.	Journal of Reliability and Statistical Studies – JRSS
	Journal Computer Science and Engineering
	Journal Automatic Control and Information Sciences
	World Journal of Computer Application and Technology
	Journal of Applied Mathematics and Statistics
	Research Journal of Computation and Mathematics
prof. Ing. Vitaly Levashenko, PhD.	Computer Science and Engineering
	Automatic Control and Information Sciences
	Science Journal of Applied Mathematics and Statistics
	Open Journal of Artificial Intelligence
	Journal of Radio Electronics, Computer Science
prof. Ing. Josef Vodák, PhD.	Journal Nierównosci spolecznea wzrost gospodarczy
assoc. prof. Ing. Martina Blašková, PhD.	Journal Public Administration Research
	Journal Asian Social Science
	Journal Social Sciences
	Journal Public Security and Public Order
	Journal Production Engineering Archives
assoc. prof. Ing. Radoslav Jankal, PhD.	Journal Business and Management Research
	The GSTF Journal on Business Review
	Journal Financial and Credit Activity: Problems of Theory and Practice

Members of international conferences program comittees	
Faculty members	**Conference name**
assoc. prof. Ing. Penka Martincová, PhD.	International Conference InfoTech (Bulgaria)
prof. Ing. Juraj Miček, PhD.	International Conference on Wireless Sensor Networks - WSN'15 (Lodz, Poland)
assoc. prof. Ing. Peter Ševčík, PhD.	International Conference on Wireless Sensor Networks - WSN'15 (Lodz, Poland)
Ing. Michal Hodoň, PhD.	International Conference on Wireless Sensor Networks - WSN'15 (Lodz, Poland)
Ing. Jana Milanová, PhD.	International Conference on Wireless Sensor Networks - WSN'15 (Lodz, Poland)
Ing. Matúš Jurečka, PhD.	International Conference on Wireless Sensor Networks - WSN'15 (Lodz, Poland)
assoc. prof. Ing. Ondrej Karpiš, PhD.	International Conference on Wireless Sensor Networks - WSN'15 (Lodz, Poland)
Ing. Michal Kochláň	International Conference on Wireless Sensor Networks - WSN'15 (Lodz, Poland)
Ing. Martin Hudik, PhD.	International Conference on Wireless Sensor Networks - WSN'15 (Lodz, Poland)
assoc. prof. Ing. Martin Kapitulík, PhD.	International Conference on Wireless Sensor Networks - WSN'15 (Lodz, Poland)
assoc. prof. Ing. Martina Blašková, PhD.	Biannual CER Comparative European Research Conference (London)
	International Scientific Conference Human Potential Development (Klaipeda, Lithuania)
	International Scientific Conference Toyotarity in the Context of European Culture (Ustroń Jaszowiec, Poland)
assoc. prof. Ing. Radoslav Jankal, PhD.	International Scientific Conference Human Potential Development (Klaipeda, Lithuania)
	International Conference on Business Strategy and Asian Economic Transformation

6.4 Published journals

Faculty of Management Science and Informatics in the year 2016 has publishing three scientific journals oriented to the research activity.

- Journal of Information, Control and Management Systems
- Slovak Scientific Journal Management: Science and Education
- Human Resources Management and Ergonomics

Figure 10 Published journals

6.5 Scientific and professional events

Faculty of Management Science and Informatics in the year 2016 organized or participated on the organization on following Scientific and Professional Events:

- Information and Digital Technologies -
- Software Development and Object Technologies
- Open Software in Education, research and IT
- Horizons of Railway Transport
- Euro-Žel - New challenges for European Railways Institutions
- Human Potential Development
- New Trends in Management and Production engineering

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